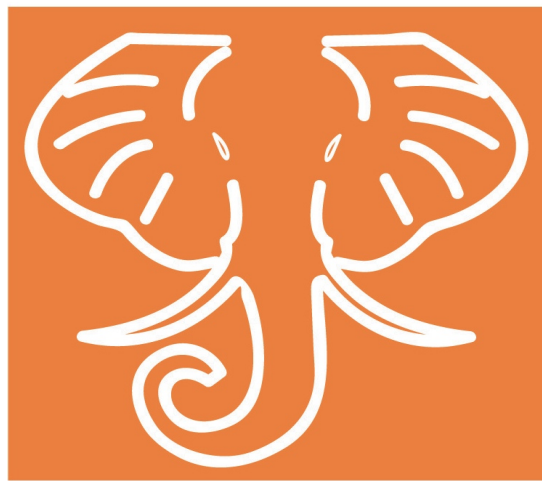


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No. 184

(Revised)

HEALTH DEPARTMENTS
OF STATES AND PROVINCES OF THE
UNITED STATES AND CANADA



U. S. TREASURY DEPARTMENT
PUBLIC HEALTH SERVICE

WASHINGTON : 1932

**U. S. TREASURY DEPARTMENT
PUBLIC HEALTH SERVICE**

**Public Health Bulletin No. 184
(Revised)**

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**HEALTH DEPARTMENTS
OF STATES AND PROVINCES OF THE
UNITED STATES AND CANADA**

Compilation by

**JOHN A. FERRELL, M. D., Dr. P. H.
WILSON G. SMILLIE, M. D., Dr. P. H.
PLATT W. COVINGTON, M. D., C. P. H.
PAULINE A. MEAD, B. Sc. in Hyg.**

**International Health Division of the Rockefeller Foundation
for the Conference of State and Provincial Health Authorities of North America**

Prepared by Direction of the Surgeon General



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PREFACE TO SECOND EDITION

Five years have elapsed since the data published in the first edition of Health Departments of the States and Provinces of the United States and Canada were collected. As many changes in State and provincial health appropriations and laws have occurred and the census of 1930 has been completed, the White House Conference on Child Health and Protection and the Conference of State and Provincial Health Authorities of North America have requested that a revision of the data as of 1930 be published. These agencies urged that the International Health Division of the Rockefeller Foundation assemble and prepare for publication the necessary data and that the United States Public Health Service, which published the first edition, publish also the second.

Among the changes incorporated in the second edition that were not included in the first are the following: All population figures for States and counties have been based upon the 1930 census. The State health appropriations by years for the 1925-1930 period have been included and compared with those of 1925. The personnel and salary records of 1930 have been included and compared with those of 1925. One hundred and fifty-six new county health departments for the seven States—Kentucky (34), Alabama (25), Georgia (10), Mississippi (15), Louisiana (21), Tennessee (31), and Arkansas (20)—have been organized, increasing the total number from 304 to 534 (up to December 31, 1930). The rapid growth in the valleys of the Mississippi River and its tributaries was the result of emergency measures in the 1927 flood area. County health organizations have been created during the 5-year period in Delaware, Michigan, Idaho, British Columbia, Manitoba, Quebec, and Saskatchewan. Seven State health departments have been enlarged by the addition of divisions of communicable diseases. North Dakota has added a division of sanitary engineering; two other States have added a division of orthopedics, four a division of dental hygiene, two a division of hotel and restaurant inspection, and two a division of industrial hygiene. Seven States have been added to the United States registration area for deaths and 13 have been added to the registration area for births. (See pages 77 and 78.) Only Texas and South Dakota are now outside the registration area for births and only Texas is outside the area for deaths, and both are making progress toward meeting the admission requirements. Expenditures specifically for venereal diseases have been diminished by 12 State health departments and expenditures for child hygiene by 25 States, due largely to the reduction or withdrawal of Federal aid for these purposes. Changes in the plan of organization of the health department have been made in California, Georgia, North Carolina, Texas, Manitoba, and Ontario. Additional tabulations have been included. Table 79 shows 1930 appropriations from State legislatures to certain bureaus or divisions of State departments of health; Table 80 gives the percentages of the total State appropriations allocated to the respective divisions; Table 81 enumerates salaries of certain division directors; and Table 82 gives the salary scale and the salary averages for State health officers and the various division directors.

Sincere thanks are extended to the State and provincial departments of health for supplying cheerfully and promptly the large amount of detailed information called for. The task of collecting the material for the second edition was less

difficult for all who participated than the securing of the material for the original edition. Miss Pauline A. Mead, a statistician in the office of the Rockefeller Foundation, has devoted many months to the details involved in assembling and preparing the data for publication. The information service of the foundation has shared also in the editorial work. Appreciation is hereby accorded to all those who have participated in the task of issuing the second edition.

JOHN A. FERRELL.

International Health Division, The Rockefeller Foundation, 61 Broadway
New York, December 1, 1930.

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HEALTH DEPARTMENTS OF STATES AND PROVINCES OF THE UNITED STATES AND CANADA

HEALTH SERVICE IN THE UNITED STATES

I. The United States Public Health Service

HISTORY

The organization now known as the Public Health Service had its origin in the Marine Hospital Service, which was established by an act of Congress approved on July 16, 1798. By the Act of 1878 authority was given to impose quarantine to prevent the entry of disease into the United States from abroad. In 1893 this authority was extended, and provision was made for cooperation with State and municipal health agencies. In 1912 the name was changed to the United States Public Health Service.

ORGANIZATION AND FUNCTIONS

The Public Health Service is in the Treasury Department, in direct charge of the Surgeon General, whose acts are subject to supervision and approval by the Secretary of the Treasury. As organized at present the Surgeon General administers the affairs of the Public Health Service through eight administrative divisions. These are: (1) The division of marine hospitals and relief; (2) division of domestic (interstate) quarantine; (3) division of foreign and insular quarantine and immigration; (4) division of personnel and accounts; (5) division of sanitary reports and statistics; (6) division of scientific research; (7) division of venereal diseases; and (8) division of mental hygiene. While the public-health functions of the service had their inception in the prevention of the introduction and spread of quarantinable diseases, their development in logical sequence was largely the result of growing public opinion.

1. *Division of marine hospitals and relief.*—The division of Marine hospitals and relief supervises the performance of the functions for which the Public Health Service was established in 1798. There are now 25 marine hospitals in various ports of the United States. Provision is made for the care and treatment of merchant seamen in more than 150 ports of the United States and insular possessions, and there are always between 3,000 and 4,000 seamen and other beneficiaries in hospitals under the supervision of this division. More

than 400,000 persons annually apply for treatment or examination at these hospitals and the out-patient offices.

2. *Division of domestic (interstate) quarantine.*—The functions of the domestic quarantine division may be summarized as follows:

- (1) Enforcement of the interstate quarantine regulations of the United States. (The suppression of epidemics and the prevention of interstate spread of epidemic diseases.)
- (2) Aid in the development of State departments of health, especially divisions of communicable diseases and sanitary engineering.
- (3) Control over water supplies used for drinking and culinary purposes on railroads, vessels, and other carriers in interstate commerce.
- (4) Sanitation of the national parks in cooperation with the National Park Service.
- (5) Measures for the control and prevention of trachoma.
- (6) Studies of and demonstrations in rural sanitation.
- (7) The annual conference of State and Territorial health authorities with the Public Health Service.
- (8) Other contacts with State and Territorial health officials relating to health administration.

3. *Division of foreign and insular quarantine and immigration.*—The Public Health Service administers through this division laws and regulations concerned with the prevention of the introduction of dangerous quarantinable diseases of man from infected foreign countries into the United States and the performance of the medical examination of aliens seeking admission into the United States to detect any existing mental or physical defects or diseases which would make them inadmissible under the immigration laws.

The quarantinable diseases specifically included in the scope of the quarantine laws of the United States and the Pan American Sanitary Code (1924) and the International Sanitary Convention of Paris (revised 1926) are cholera, plague, yellow fever, typhus fever, and smallpox; in addition, special measures are adopted under threatening circumstances to prevent the introduction of any other contagious or infectious disease of man.

There are three principal lines of defense against the introduction of these diseases. The first line consists of medical officers of the Public Health Service who are stationed in important ports throughout the world to prevent these quarantinable diseases being carried by vessels destined for United States ports. They also assist the American consular officers in furnishing information concerning the sanitary conditions prevailing in the ports and countries in which they are located and issue bills of health required to be presented by such vessels upon arrival in the United States. The second line of defense consists of the quarantine inspection upon arrival from foreign ports of every vessel and its passengers and crew and the examination of its bills of health and other papers by medical officers of the Public Health Service. No vessel or person is permitted entry

until granted a clearance—"pratique"—by the quarantine officer. Quarantine stations equipped with hospitals, detention barracks for passengers and crew, and disinfecting and fumigating facilities are maintained at the principal United States ports for the appropriate treatment of infected vessels or persons. Cases of quarantinable diseases and persons exposed to such infections are removed from arriving vessels and are detained at the Federal quarantine stations for treatment or observation until such time as they may be permitted entry without danger of transmitting the disease; infected vessels, baggage and merchandise are subjected likewise to appropriate preventive measures before being granted a clearance from quarantine. The third line of defense consists of the cooperation of the United States Immigration Service and of the respective State and local health authorities with the Public Health Service in follow-up work at the various ports, especially with reference to cases of contagious or infectious diseases which are not quarantinable in nature. During the fiscal year 1930, 20,645 vessels arriving with 1,056,294 passengers and 1,380,241 crew from foreign ports in all parts of the world were subjected to quarantine examination upon arrival at United States ports, of which 6,075 vessels required and were subjected to treatment before they could be granted clearance from quarantine.

The examination of all aliens by medical officers of the Public Health Service at ports of entry in the United States is required by the immigration laws to determine whether such aliens are afflicted with mental or physical defects or diseases which make them inadmissible into the United States. The result of the medical examination is certified to officers of the Immigration Service for their information and guidance in the administration of the immigration laws.

Any alien found to be afflicted with idiocy, imbecility, feeble-mindedness, constitutional psychopathic inferiority, insanity, or any other mental defect or disease is inadmissible, as also are aliens afflicted with tuberculosis or any dangerous or loathsome contagious disease. Aliens afflicted with any physical defect or disease which is likely to affect their ability to earn a living and to be self-supporting are likewise inadmissible unless they can satisfy the immigration authorities that they are not liable to become a public charge on account of such condition.

The preliminary determination of the admissibility of aliens in their countries of origin by American consular officers was inaugurated in 1925 and is now accomplished in the majority of European countries as well as in Canada, Mexico, and Cuba, supplementing the examinations made at ports of entry in the United States, and medical officers of the Public Health Service are now attached to American consulates in those countries for the purpose of making the necessary mental and physical examination of intending immigrants and to otherwise assist

the consular officers in determining their admissibility prior to granting them a visa to come to the United States.

During the fiscal year 1930, medical officers of the Public Health Service examined 156,370 intending immigrants abroad and also 1,211,796 aliens arriving at United States ports, of whom 45,826 were certified to be afflicted with mental or physical defects or diseases which made them inadmissible under the immigration laws.

4. *Division of personnel and accounts.*—The division of personnel and accounts is charged with keeping records of appointments, promotions, discontinuances, leaves of absence, changes of station, and the maintenance of discipline in accordance with the laws and regulations on the subject. In addition, the division looks after the preparation of estimates of appropriations to carry on activities, recommends apportionments of appropriations in conformity with law, makes allotments to conduct the several activities, and maintains records of all finances and expenditures, including an elaborate system of cost accounting, for the manifold operations of the Public Health Service. Also it is through this division that all records of property and supplies are maintained and surplus supplies at one station distributed to other stations as may be needed. An important function of the division is the recruiting of commissioned personnel in order to give them opportunity for experience in the larger duties they will be called upon later to perform. Moreover, through experience, officers are able to engage in highly technical investigations affecting the public health.

For administrative purposes, the Public Health Service divides the country into six sanitary districts, with a medical director assigned to each district. Through these directors the Surgeon General keeps in touch with State and local health authorities, universities, industries, and other interests favorably affected by public health work.

Within the service there are groups of officers having special qualifications for solving particular problems. Some of these officers devote their time regularly to investigations of communicable diseases, nutritional diseases, the health hazards of industry, or other public health problems. But when an emergency arises in any district, selection and detail of personnel must be made to meet the situation. In such cases the division of personnel and accounts is the channel through which the Surgeon General transmits his orders. All epidemic situations are met in this manner. These movements of personnel are limited as much as possible, however, by the policy of having officers with all-round training distributed here and there so as to meet emergency situations as they arise.

5. *Division of sanitary reports and statistics.*—The collection and dissemination of information concerning the prevalence of disease is of increasing importance in this age of speedy transportation facilities.

The division of sanitary reports and statistics may well be described as the intelligence office of the Federal health agency, whose intelligence, however, is used throughout the world by other governments, as well as by our own local and State agencies. Broadly speaking, this division has two general duties: First, the collection from all parts of the world, including our own country, of information having a bearing on the maintenance of public health; and, second, the dissemination of this information in such a manner and to such persons and organizations as will make it most valuable. Between the collection and dissemination of information there is, of course, the very important work of compilation.

The information employed by the division is secured from many sources, local, State, Federal, and international. The consuls and consular officers stationed abroad make weekly reports to the Public Health Service as a part of their routine duties. These reports are the principal sources upon which the Public Health Service depends for what may be designated its current information on world health conditions. In addition, the United States has sanitary agreements with all of the important nations of the world as well as a regional agreement with Pan American countries. These sanitary agreements, which have the force of treaties, provide for an international exchange of information relating to public health.

In the domestic field the Public Health Service is kept informed of conditions by reports from officers of the service who are stationed in all parts of the country, from State, city, and county health officers, and from other sources. In some States officials in the State and local health departments are given appointments as officers of the Federal Government for the purpose of facilitating the securing of reports of diseases dangerous to the public health. These reports from city and State officials and from the consular officers abroad constitute the basis for the information regarding the prevalence of disease contained in the Public Health Reports, which is issued weekly by the Public Health Service and sent to nearly 10,000 public-health officials and paid subscribers.

6. *Division of scientific research.*—Recognizing the necessity for and propriety of governmental research in the public-health field, Congress, in the act of August 14, 1912, provided that “the Public Health Service may study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage and the pollution either directly or indirectly of the navigable streams and lakes of the United States.”

An earlier act of Congress had established the Hygienic Laboratory, in Washington, the scene of an important part of the research activities carried on by the division of scientific research of the Public Health Service.

6. HEALTH DEPARTMENTS OF STATES AND PROVINCES

By the act of Congress approved May 26, 1930, the name of the Hygienic Laboratory was changed to the National Institute of Health, with liberal provisions for reorganization and expansion.

The scope of the division's activities may be described as follows:

(1) The investigative functions have been extended to include every major topic of public-health interest. The approaches to the problems have been from several standpoints, viz, (a) of the basic sciences in the laboratory; (b) of clinical study; (c) of epidemiology; (d) of sociology and economics; (e) of vital statistics; (f) of public-health administration.

(2) The function of control of biologic products, authorized by the act of July 1, 1902, has extended to the limitations of the act in so far as permitted by the funds appropriated. It has included researches necessitated by adequate control. The control of biologic products requires inspections in many parts of the United States and in European countries.

7. *Division of venereal diseases.*—The activities of this division, carried out in accordance with the provisions of the law designating its functions, include:

1. Scientific research into the treatment and methods of control of venereal diseases.

2. Cooperation with State and local health authorities in the development and maintenance of control measures.

3. Educational work carried on through field demonstrations, the publication and distribution of literature, the circulation of motion-picture films and other exhibit material, and the presentation of lectures and scientific papers to selected groups.

Studies concerning the various aspects of syphilis and gonorrhea recently have occupied a large part of the attention of the division. These investigations have included a retrospective inquiry into the results of treatment of syphilis, carried out in cooperation with a group of five of the leading syphilis clinics in the country; studies of the infectivity of syphilis cases in various stages of the disease; the experimental use of biological products in the treatment of gonorrhea; and determination of the prevalence of the venereal diseases in various States, counties, and cities through the use of the 1-day census method.

Cooperating with the State, the venereal-disease division acts as a clearing house for information obtained through State reports on prevalence and the activities of clinics. A total of 27 States have made special provision in their organizations for venereal disease control work. In the fiscal year 1930, 43 States reported 213,309 cases of syphilis and 155,875 cases of gonorrhea, and 124,842 new admissions to clinics. There were 477 local clinics cooperating with the division.

One of the most important educational activities being undertaken at the present time consists in the demonstration of the practicability of mass treatment of syphilis under conditions existing in rural com-

munities. With the aid of one of the large philanthropic foundations, it has been possible for the division, cooperating with State and local authorities, to inaugurate extensive Wassermann surveys and treatment projects among rural negroes in five counties in the Southern States.

Approximately 150,000 pieces of free literature are distributed by the division each year in response to requests from individuals, institutions, and organizations. The division also edits and publishes a monthly bulletin, "Venereal Disease Information," which contains abstracts and original articles on treatment and control of the venereal diseases. More than 85,000 copies of this bulletin are sent out annually to physicians and other subscribers.

In cooperation with the National Park Service, the division maintains a free clinic at Hot Springs, Ark., for indigents who come there to take advantage of the free baths provided by the Government. A total of 5,704 applicants for relief received 79,180 treatments in this clinic during the fiscal year 1930.

8. *Division of mental hygiene.*—The year ending June 30, 1930, was characterized by additional legislation seeking to coordinate and crystallize the functions of the division of mental hygiene. At the close of the year, the functions of the division included the administration of the two United States narcotic farms authorized in the act of January 19, 1929; studies and investigations of the nature of drug addiction and the best methods of treatment and rehabilitation of persons addicted to the use of habit-forming drugs; the dissemination of information on methods of treatment and research in this particular field; cooperation with State and local jurisdictions with a view to their providing facilities for the care and treatment of narcotic addicts; the supervising and furnishing of medical and psychiatric service in Federal penal and correctional institutions; studies and investigations of the abusive use of narcotic drugs and the quantities of such drugs necessary to supply the normal and emergency medicinal and scientific requirements of the United States; and, lastly, studies and investigations of the causes, prevalence, and means for the prevention and treatment of mental and nervous diseases.

II. General Summary of the State Health Services.

1. THE STATE BOARDS OF HEALTH

HISTORY

The first State health organization was established in Massachusetts in 1869. Before the close of the century 38 other States had organized similar departments. The year in which the various State departments of health were created is given in Figure 1.

ORGANIZATION

Information regarding the organization of the various State boards of health is summarized in Table 1, which shows the number of mem-

bers on the board, their legal qualifications, method of appointment, term of office, compensation, and the number of meetings held yearly.

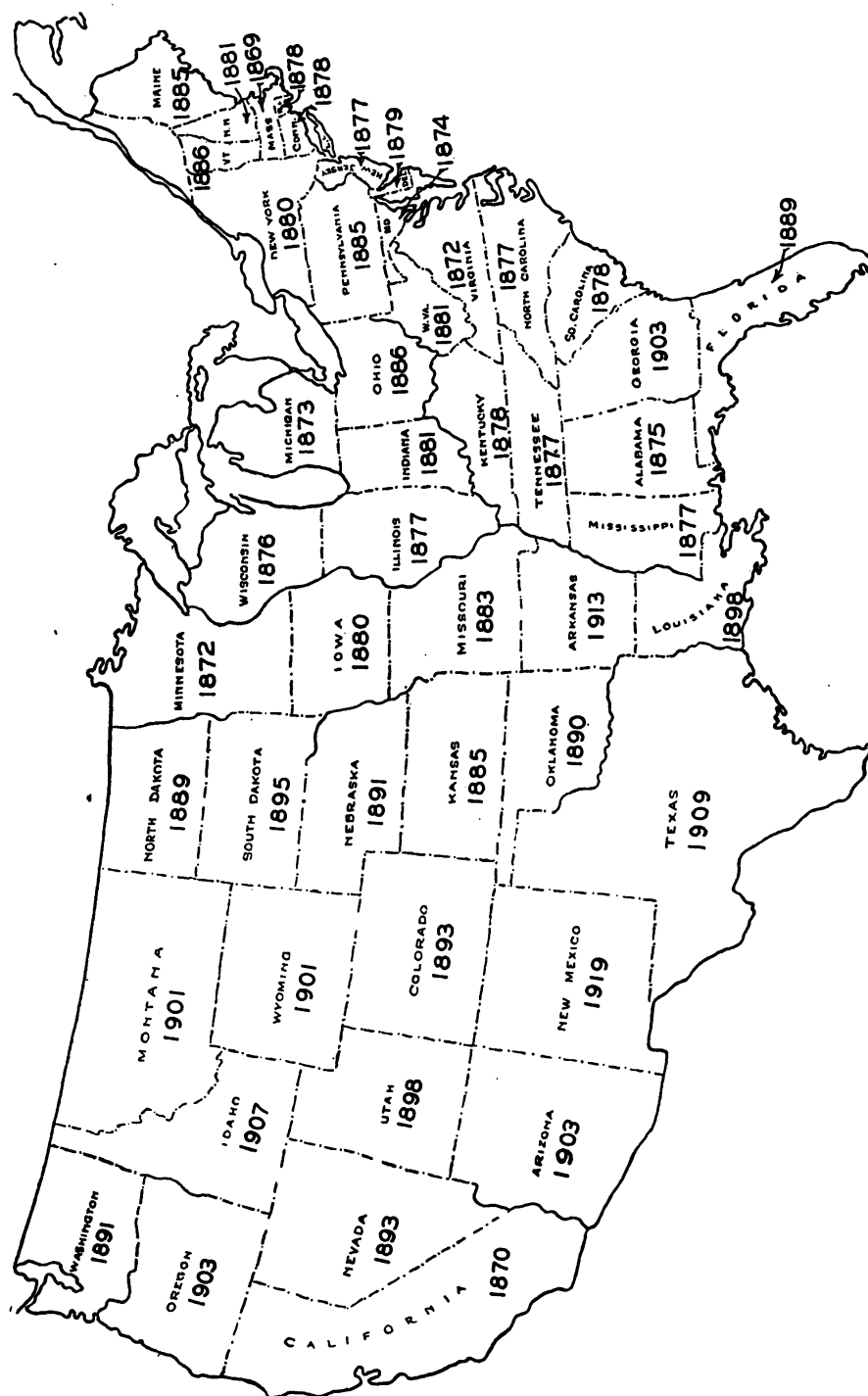


FIGURE 1.—Date of creation of each State board of health for the purpose of promoting public health work

Instead of a State board of health, Connecticut, Maine, Massachusetts, New York, Ohio, and West Virginia have a public health council, which functions mainly in an advisory capacity. Connecticut

is somewhat exceptional in that the public health council has three functions: (1) To establish a sanitary code; (2) to report biennially to the governor recommendations concerning the department of health; and (3) to approve appointments made by the commissioner of health. In Illinois, Michigan, North Dakota, and Pennsylvania there is an advisory council or board instead of a State board of health, and in Rhode Island, there is a State public health commission.

It will be noted that three States—Idaho, Nebraska, and Oklahoma—have no State board of health or advisory council. In Tennessee the law provides for an advisory council of five members to be appointed by the governor, but as the governor has not appointed these members, all executive power is vested in the commissioner of health.

TABLE 1.—State boards of health, 1930

State	Num- ber of mem- bers	Legal qualifications	Appointed by	L-length of term in years	Expiration of term	Salary per diem	Num- ber of meet- ings
Alabama.....	10	Physicians, counsellors of medical association. ¹	State medical association.	5	2 each year.....	None.	3
Arizona.....	3	Governor, attorney general, superintendent of health ex officio.	Governor.....	2	All at once.....	None.	2
Arkansas.....	7	Physicians with 7 years' practice.	do.....	4	2 each year.....	\$10	4
California.....	7	Licensed and practicing physicians.	do.....	4	(¹).....	None.	12
Colorado.....	9	Citizens and voters in State.	do. ¹	6	3 every 2 years.....	None.	12
Connecticut ¹	7	3 physicians, 2 sanitary engineers.	do.....	6	2 every 2 years.....	None.	10-15
Delaware.....	8	4 physicians, 3 women, 1 dentist.	do.....	4	2 each year.....	None.	12
Florida.....	3	Discreet citizens of the State.	do.....	4	(¹).....	6	1
Georgia ¹³	15	Majority physicians, 2 dentists.	do.....	6	2 each year.....	5	2
Idaho.....	0	No State board of health.					
Illinois ⁴	5	None specified.	Governor.....	(¹)	(¹).....	None.	4
Indiana.....	5	None, except for secretary.	Appointing board.	4	2 every 2 years.....	10	4
Iowa.....	11	(¹).....	Governor ¹	(¹)	(¹).....	None.	2
Kansas.....	10	9 physicians with 7 years' practice, 1 layman.	do. ¹	3	(¹).....	5	4
Kentucky.....	9	5 physicians, 1 pharmacist.	do. ¹	6	2 each year.....	(¹)	2
Louisiana.....	9	2 physicians, dentist, pharmacist, educator with 10 years' experience.	do. ¹	4	2 every year.....	15	4
Maine ⁴	6	2 physicians, 1 dentist.	do. ¹	6	1 year each.....	5	4
Maryland.....	9	4 physicians, civil engineer, dentist, pharmacist.	do.....	6	2 every 2 years.....	15	12
Massachusetts ¹	7	3 physicians. All citizens.	do. ¹	6	2 every year.....	10	12
Michigan ¹	5	None specified.	do. ¹	3	2 every 2 years.....	10	4
Minnesota.....	9	8 physicians. All learned in sanitary science.	do. ¹	6	3 each year.....	None.	4
Mississippi.....	10	9 physicians, 1 dentist.	do.....	6	3 every 2 years.....	3	2
Missouri.....	7	5 physicians. All of 5 years' residence.	do.....	4	(¹⁰).....	10	2
Montana.....	5	Registered physicians and surgeons.	do.....	5	1 each year.....	5	2
Nebraska.....	5	No State board of health.					
Nevada.....	5	3 physicians.	Governor.....	4	1 each year.....	None.	2
New Hampshire.....	6	3 physicians, 1 civil engineer.	do. ¹	4	2 every 2 years.....	None.	6
New Jersey.....	11	3 physicians, veterinarian, dentist, 2 sanitary engineers, 2 women.	do.....	4	2 each year.....	None.	10
New Mexico.....	5	2 must be women.	do.....	6	2 every 2 years.....	None.	12
New York ¹	7	4 physicians, 1 sanitary engineer.	do.....	6	1 each year.....	(¹¹)	12
North Carolina.....	9	None specified.	Governor and medical society.	6	1 ¹² Overlap.....	4	1
North Dakota ⁴	5	1 physician, 1 dentist, 1 woman.	Governor.....	6	1 every 2 years.....	None.	2
Ohio ¹	5	2 physicians.	do.....	4	1 each year.....	10	4
Oklahoma.....	0	No State board of health.					
Oregon.....	7	Physicians.	do. ¹	4	3 every 2 years.....	None.	4
Pennsylvania ¹	6	Majority physicians with 10 years' experience, 1 civil engineer.	do. ¹	4	All at once.....	None.	4
Rhode Island ⁴	5	Qualified electors.	do. ¹	5	1 each year.....	20	12
South Carolina.....	11	7 physicians, pharmacist, dentist.	do.....	(¹²)	(¹³).....	10	4
South Dakota.....	5	Physicians with 5 years' practice.	do.....	5	1 each year.....	5	4
Tennessee ¹³	5	Physicians with 10 years' practice.	do.....	5	do.....	None.	4

Texas.....	6	Physicians with 5 years' practice.....	do. 1	6	2 each year.....	20	4
Utah.....	7	Majority physicians, 1 civil engineer.....	do. 1	7	1 each year.....	None.	4
Vermont.....	3	None specified.....	do. 1	6	1 every 2 years.....	4	12
Virginia.....	7	2 from State medical society, 1 from State dental society.....	do.	7	1 each year.....	8	1
Washington.....	5	Physicians experienced in health and sanitation.....	do. 1	(9)	(9).....	None.	2
West Virginia.....	7	Physicians with 5 years' experience.....	do. 1	4	3 every 2 years.....	10	2
Wisconsin.....	7	No legal qualifications.....	do. 1	7	1 each year.....	10	2
Wyoming.....	5	Licensed physicians, residents.....	do. 1	4	(10).....	10	3

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- 1 The State medical association is the State board of health.
- 2 1 member alternate years, 2 members the other 2 years.
- 3 With the advice and consent of the senate or council.
- 4 Advisory or public health council, board, or commission.
- 5 Members hold office until a successor is appointed.
- 6 Commissioner of health, executive council (5 members chosen at State election), 5 health officers (not more than 1 from each congressional district) appointed by the governor.
- 7 Term expires according to time of appointment. All may go out at once.
- 8 3 each year for 2 years, 4 the following year.
- 9 The president receives \$1,200 a year.
- 10 4 appointed at the beginning and 3 in the middle of the governor's term.
- 11 \$1,000 per year.
- 12 The physicians serve for 7 years, the pharmacist for 6 years, and the dentist for 5 years. The terms of the medical members expire at the same time.
- 13 The governor has never appointed an advisory council.
- 14 Not more than 3 in 1 year.
- 15 In 1931 a reorganization bill was passed abolishing the State board of health in Georgia and creating a department of public health under the management and control of a director, to be appointed by the governor with the advice and consent of the senate.
- 16 The reorganization bill of 1931 states that the members of the board shall serve for 4 years.

In the remaining 33 States the State board of health has supervisory power over the State health activities and has legislative authority to make and enforce rules and regulations concerning contagious diseases, quarantine, and the health of the people of the State.

The Alabama and South Carolina State Boards of Health differ considerably from those in the other States. In Alabama the medical association is the State board of health. This association is comprised of a body of physicians consisting of 100 counsellors, representing the 10 congressional districts of the State, and 143 delegates representing the 67 component county societies of the medical association. This body elects the State board of censors, which consists of 10 physicians who must be chosen from the State counsellors and which acts as a State committee of public health. The governor is a member and ex officio chairman of the State committee of public health. This body is the acting State board of health. The South Carolina Medical Association, together with the State attorney general and comptroller general, compose the State board of health. This association elects seven members, to be appointed by the governor, to constitute an executive committee. The attorney general and the State comptroller are ex officio members of the executive committee, and the State pharmaceutical association and the State dental association each nominate one member who is appointed by the governor, thus making a total of 11 members of the executive committee. This committee corresponds to the State board of health in other States.

LEGAL QUALIFICATIONS

The qualifications for membership in the State board of health vary greatly in the different States. Eleven States require that all members of the board shall be qualified, registered physicians. Twenty-three additional States specify that a certain number of members shall have medical degrees. Missouri stipulates that there shall be no discrimination against different systems of medicine.

Pennsylvania and Tennessee specify that the medical members of the board shall have had 10 years' experience in the practice of medicine; Arkansas and Kansas require 7 years; South Dakota, Texas, and West Virginia require 5 years; Louisiana specifies that the dentist, the educator, and the druggist on the board must have had 10 years' practical experience.

Connecticut and New Jersey specify that there shall be two sanitary engineers on the board; New York requires one sanitary engineer; Maryland, New Hampshire, Pennsylvania, and Utah require one civil engineer. Ten States, namely, Delaware, Georgia, Louisiana, Maine, Maryland, Mississippi, New Jersey, North Dakota, South Carolina, and Virginia, state that there shall be a dentist on the State board. Four States—Kentucky, Louisiana, Maryland, and

South Carolina—require that there shall be a pharmacist on the board. Four States stipulate that the board must have women members: North Dakota, 1; New Jersey, 2; New Mexico, 2 and not more than 3; and Delaware, 3. There must be one layman on the Kansas State Board of Health, an educator on the Louisiana State Board of Health, and a veterinarian on the New Jersey State Board of Health. (See Table 1.)

APPOINTMENT OF MEMBERS

The most common method of appointment is either by the governor or by the governor with the consent of the senate.

In Indiana the governor, the secretary of State, and the State auditor jointly appoint four members of the State board of health. The State board of health in Kentucky consists of nine members, eight of whom are appointed by the governor, by and with the advice and consent of the senate. One member must be a homeopath, one an eclectic, one an osteopath, one a licensed pharmacist, and the remaining appointive members must be allopathic or regular physicians. The members are appointed from a list of three names for each vacancy, furnished, respectively, by the State society or association of such schools or systems of practice as are entitled to a member.

The State board of health in Mississippi is composed of 10 members. Three men are nominated by the State medical association from each congressional district and the governor appoints one member from each congressional district. The State dental association of Mississippi nominates three dentists, from which number the governor appoints the ninth member of the board. From outside its own number the State board of health elects the tenth member, who serves as the executive officer and secretary of the board.

In Montana the State board of health is composed of five physicians appointed by the governor from a list of not less than five names submitted by the Montana Medical Association. In North Carolina five of the members of the State board of health are appointed by the governor and four are elected by the State medical society. For Alabama and South Carolina see page 10.

EX OFFICIO MEMBERS

In Alabama the board of health is elected by the State medical association and the governor is ex officio chairman. In Arizona the board consists of the governor as ex officio president of the board, the attorney general as ex officio vice president, and the superintendent of public health, who is chosen by the governor with the advice and consent of the senate. In Iowa the board is composed of the commissioner of health, the executive council (five ex officio members chosen at State election), and five health officers (not more than one

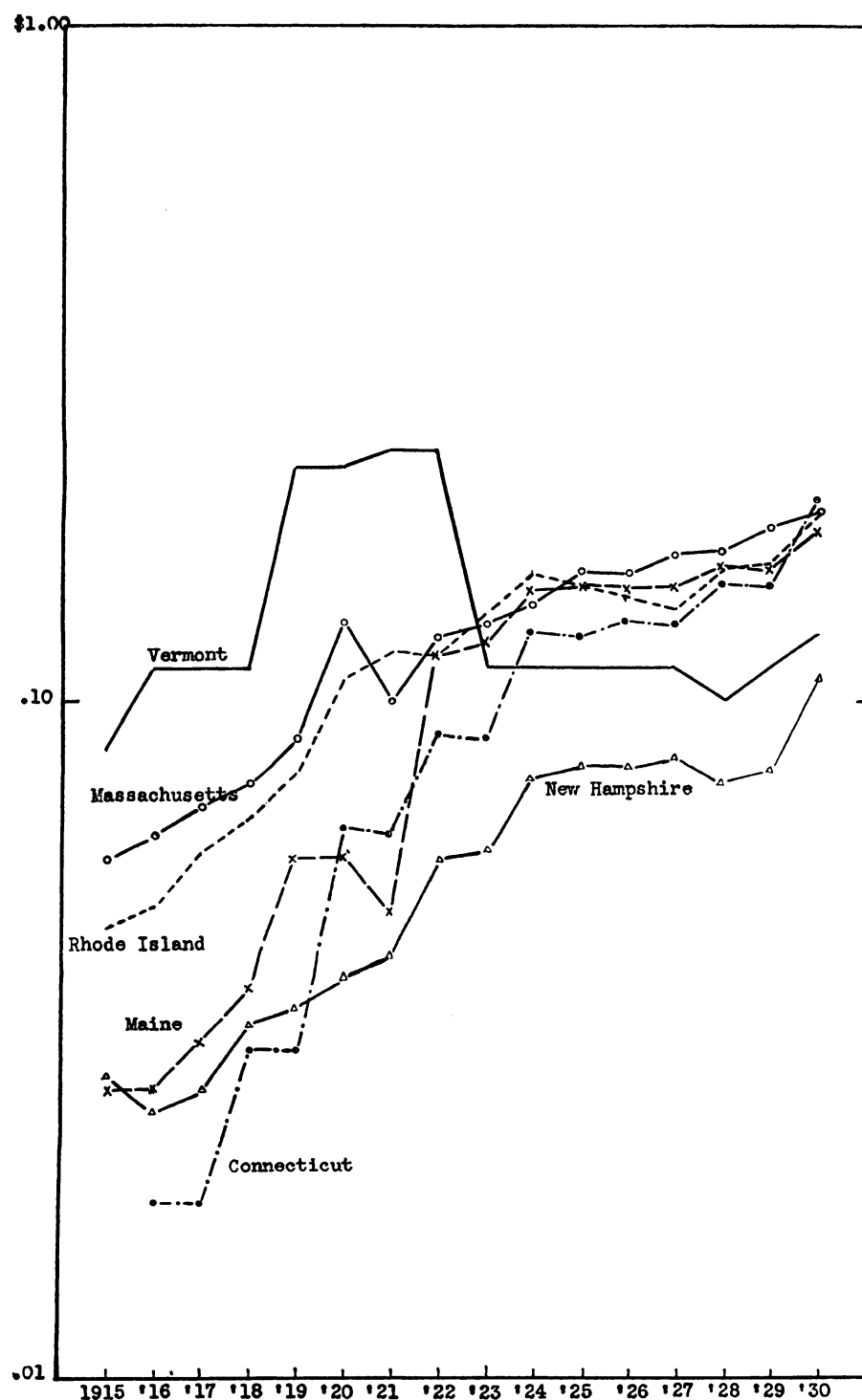


FIGURE 2.—New England States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

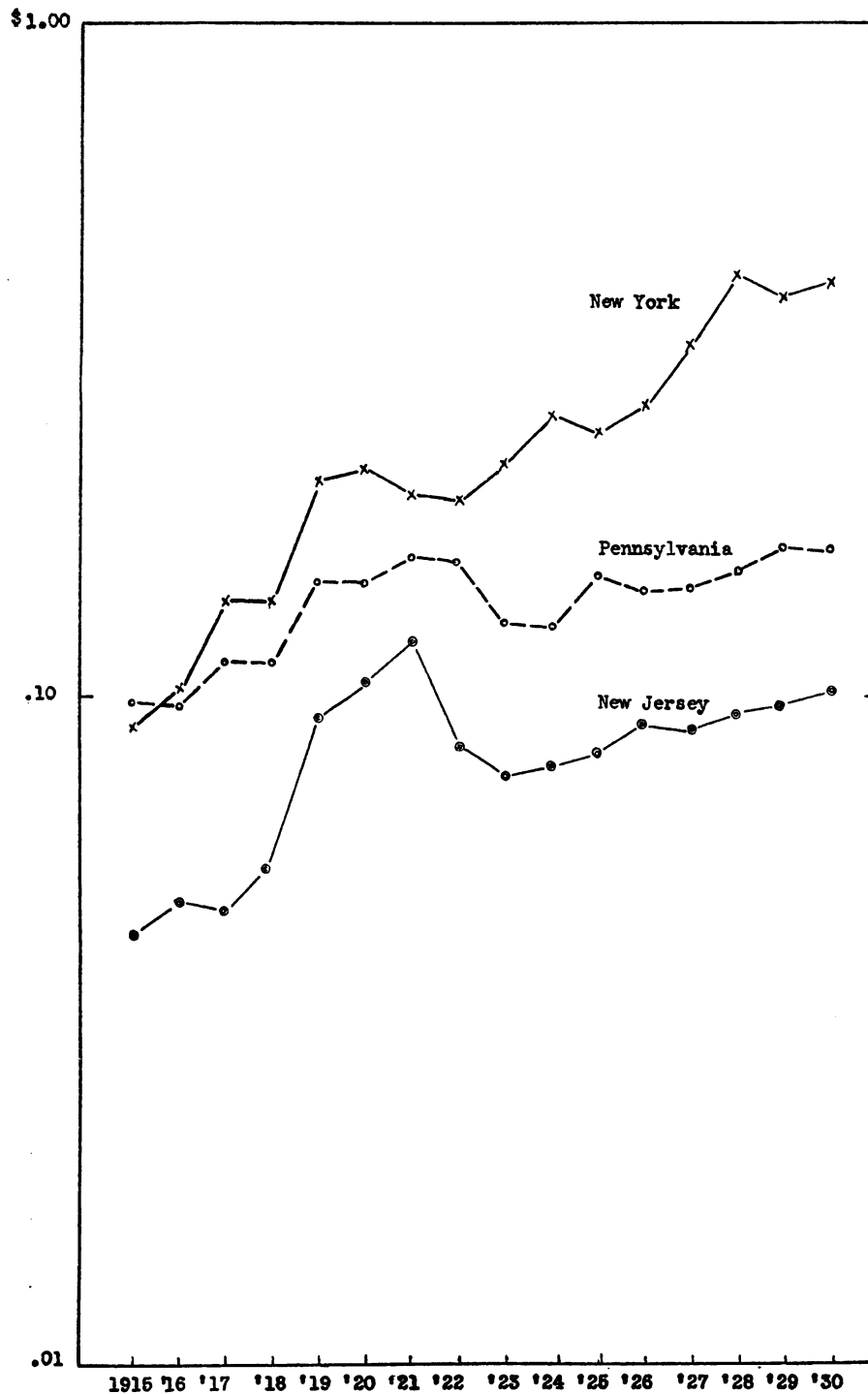


FIGURE 3.—Middle Atlantic States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

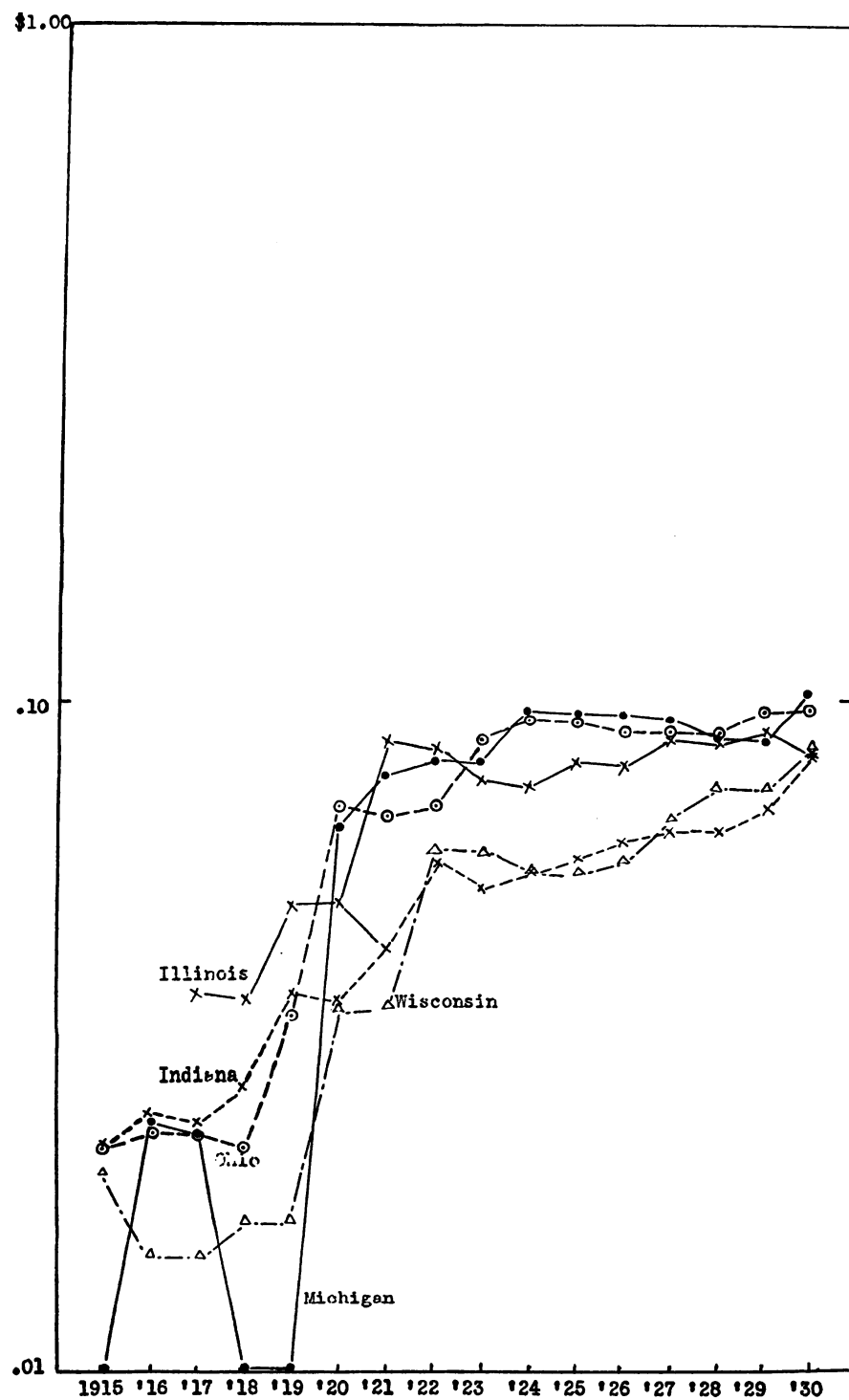


FIGURE 4.—East North Central States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

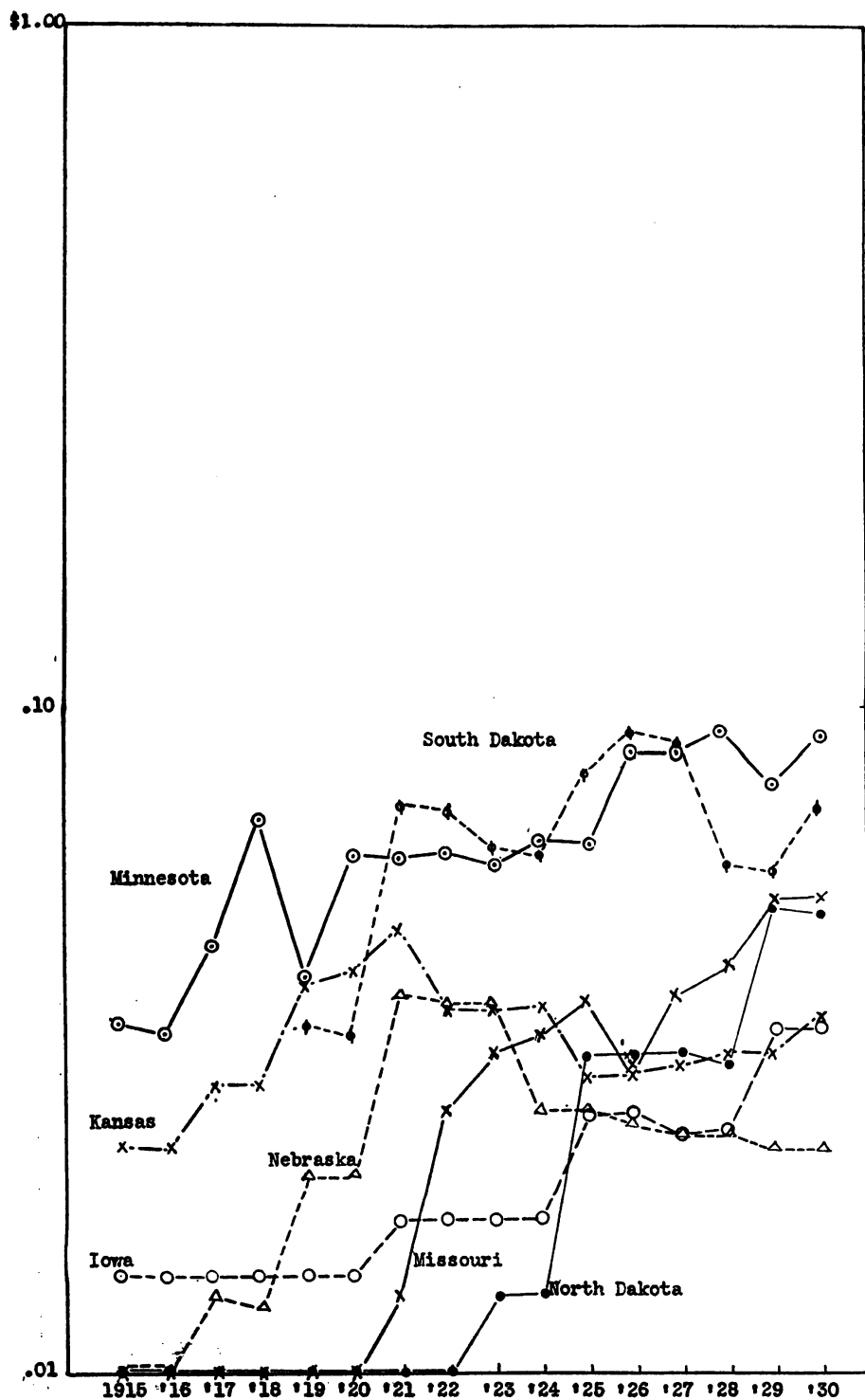


FIGURE 5.—West North Central States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

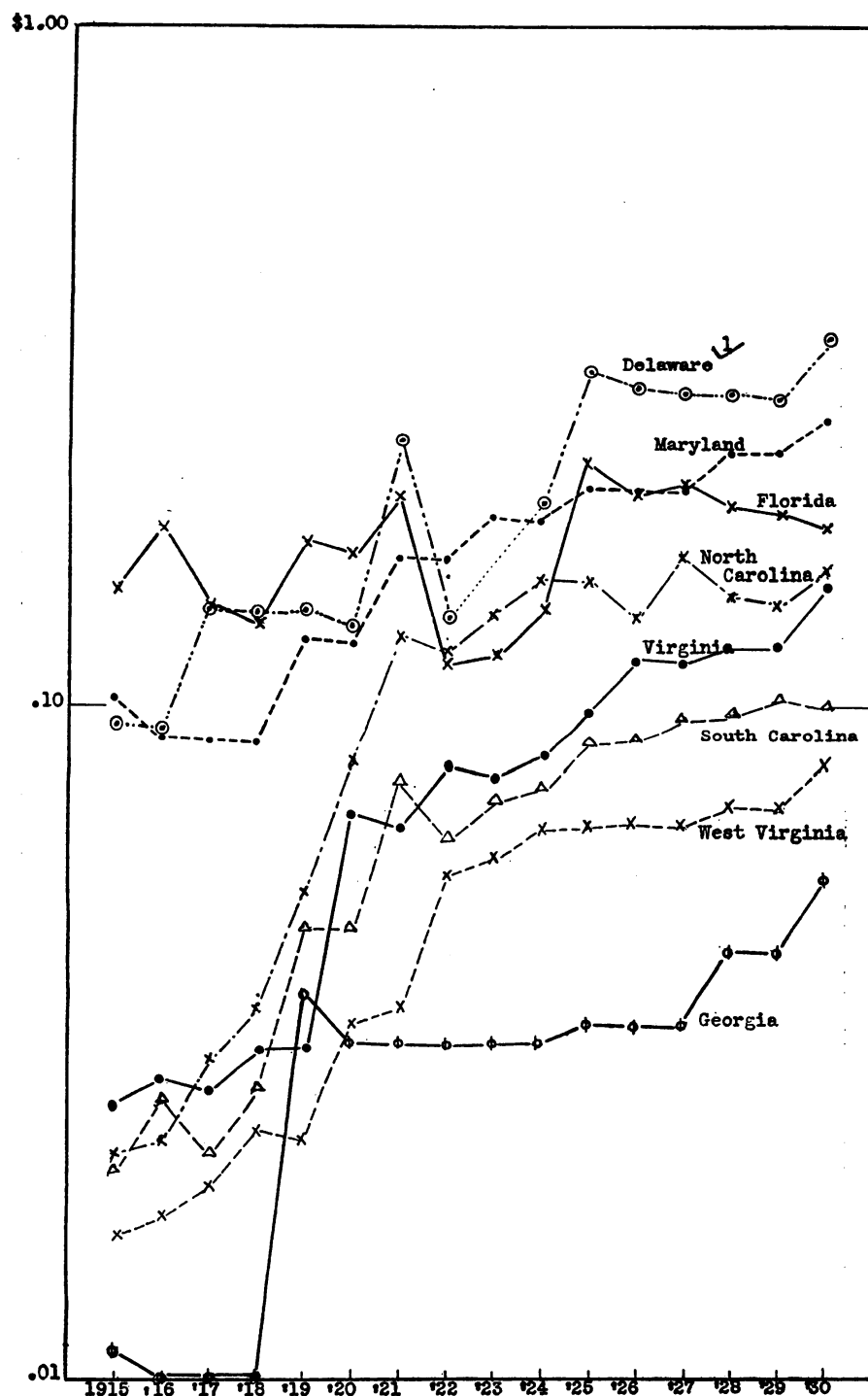


FIGURE 6.—South Atlantic States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

¹ Fiscal year changed in 1923.

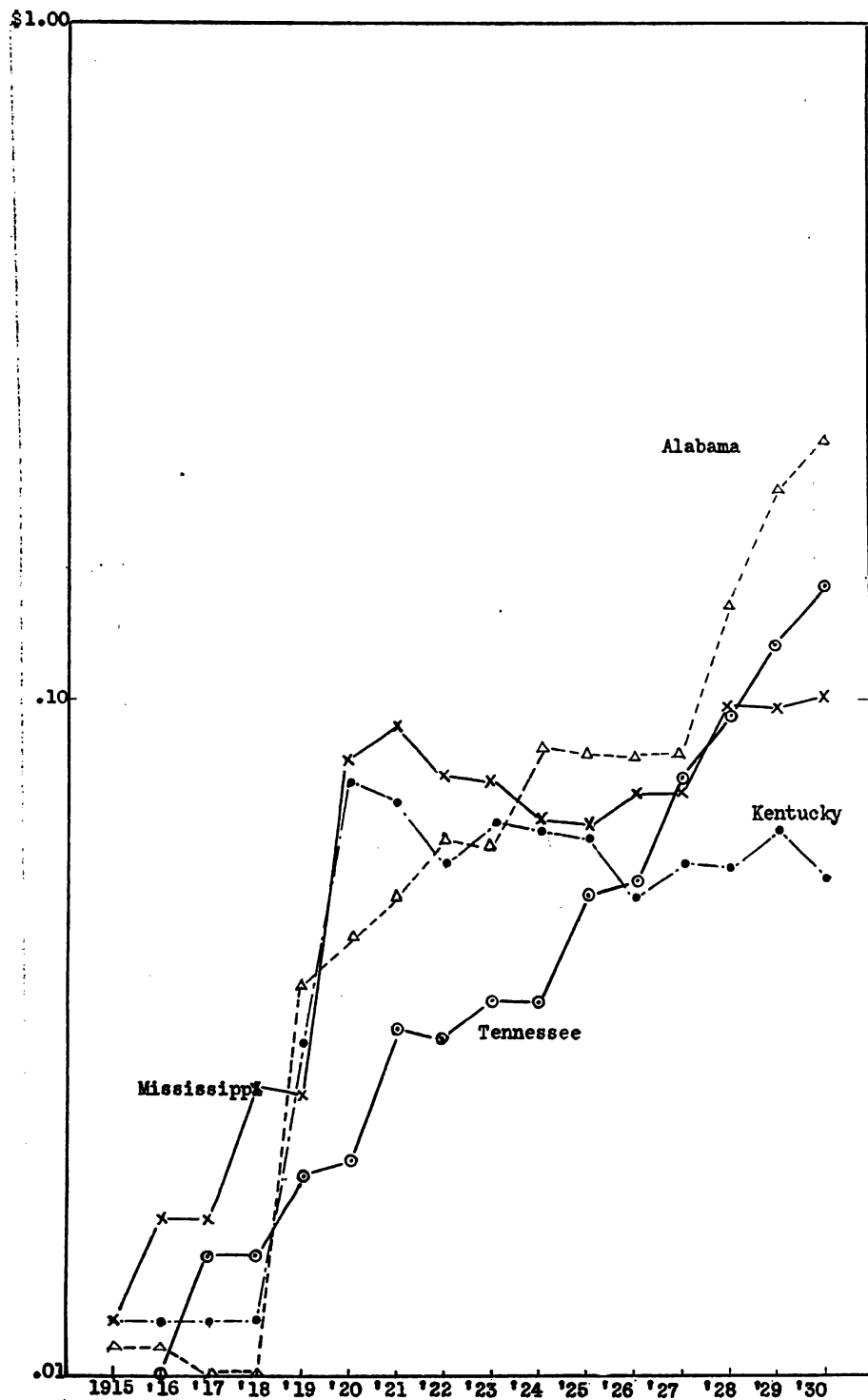


FIGURE 7.—East South Central States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

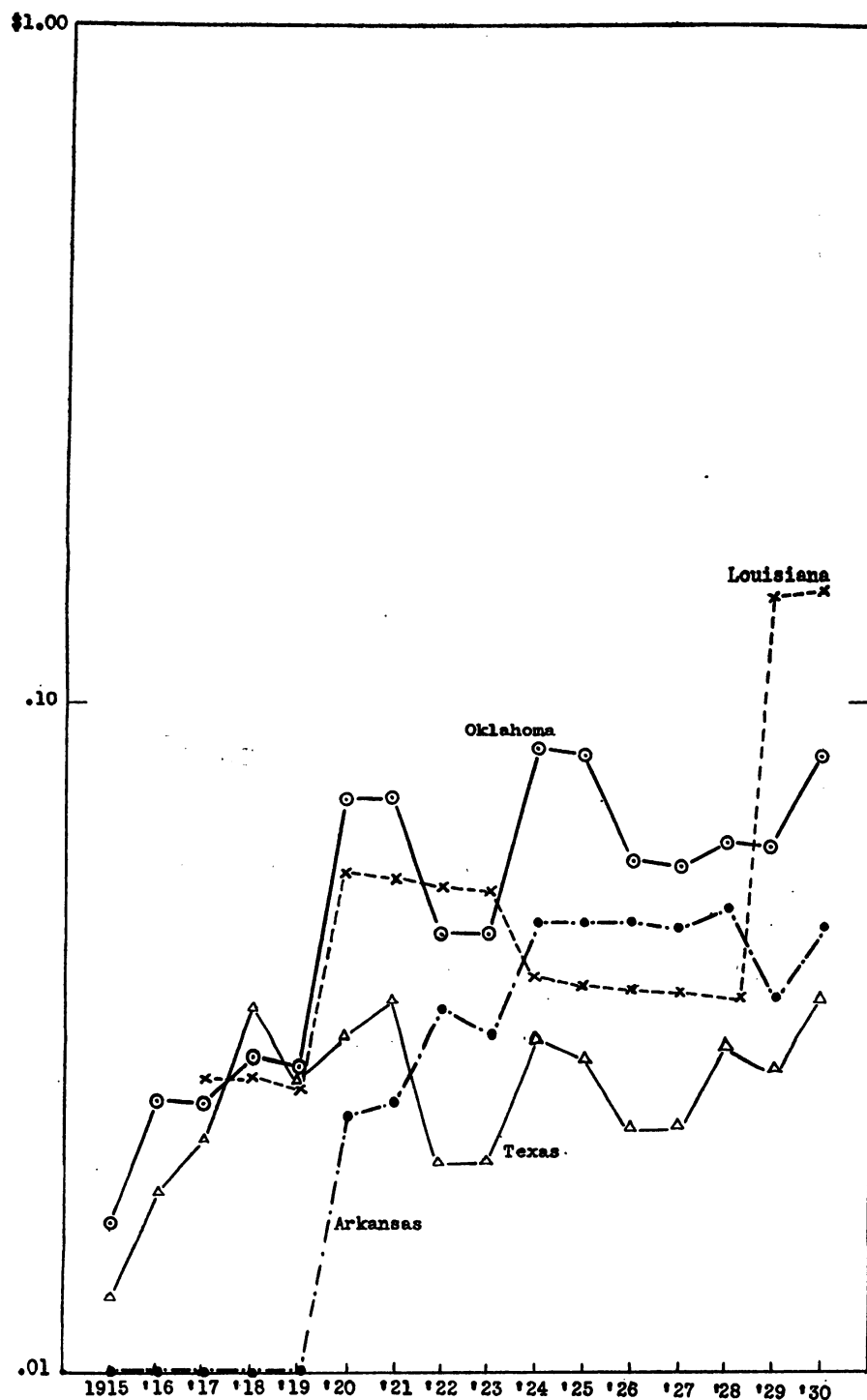


FIGURE 8.—West South Central States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

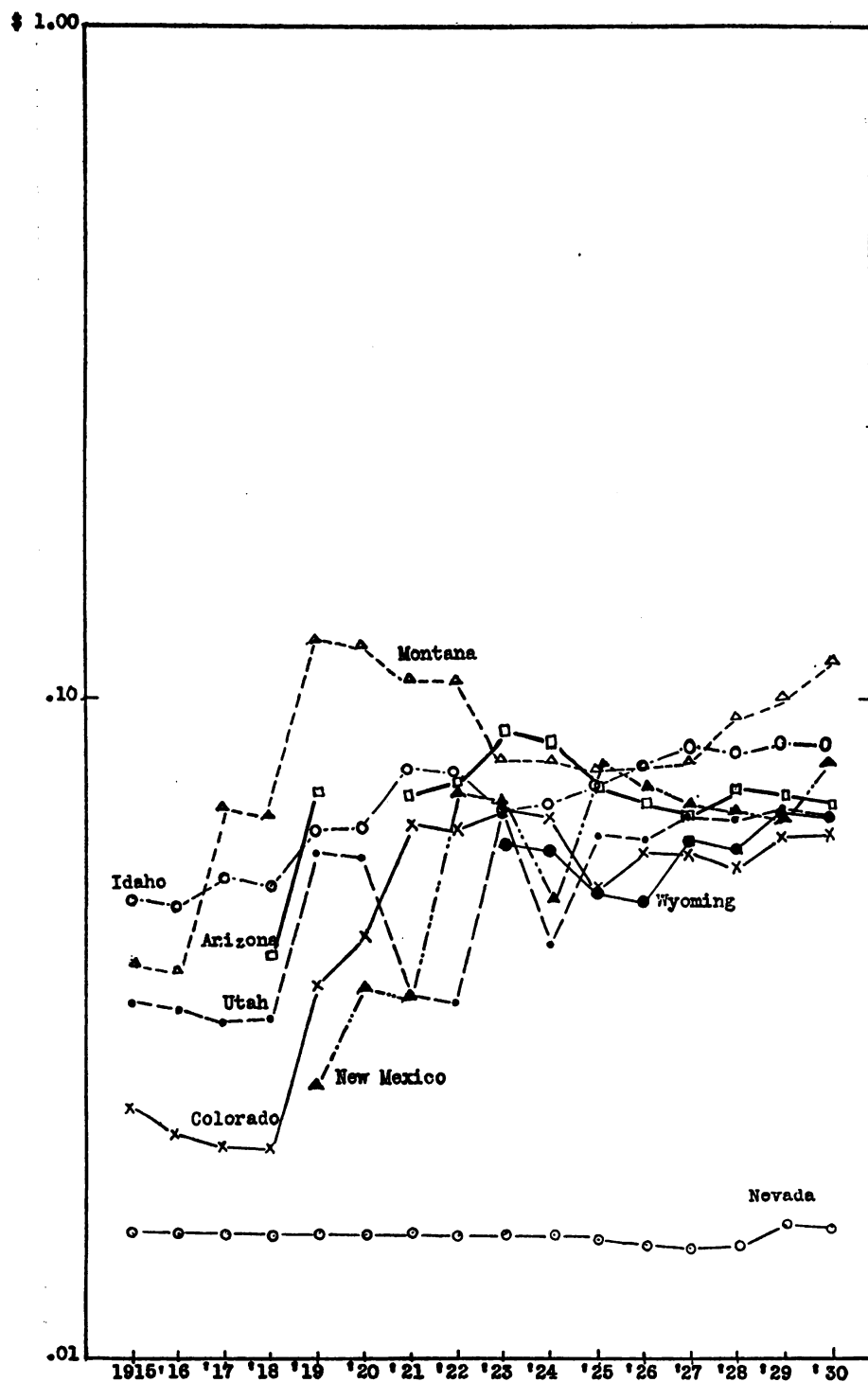


FIGURE 9.—Mountain States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

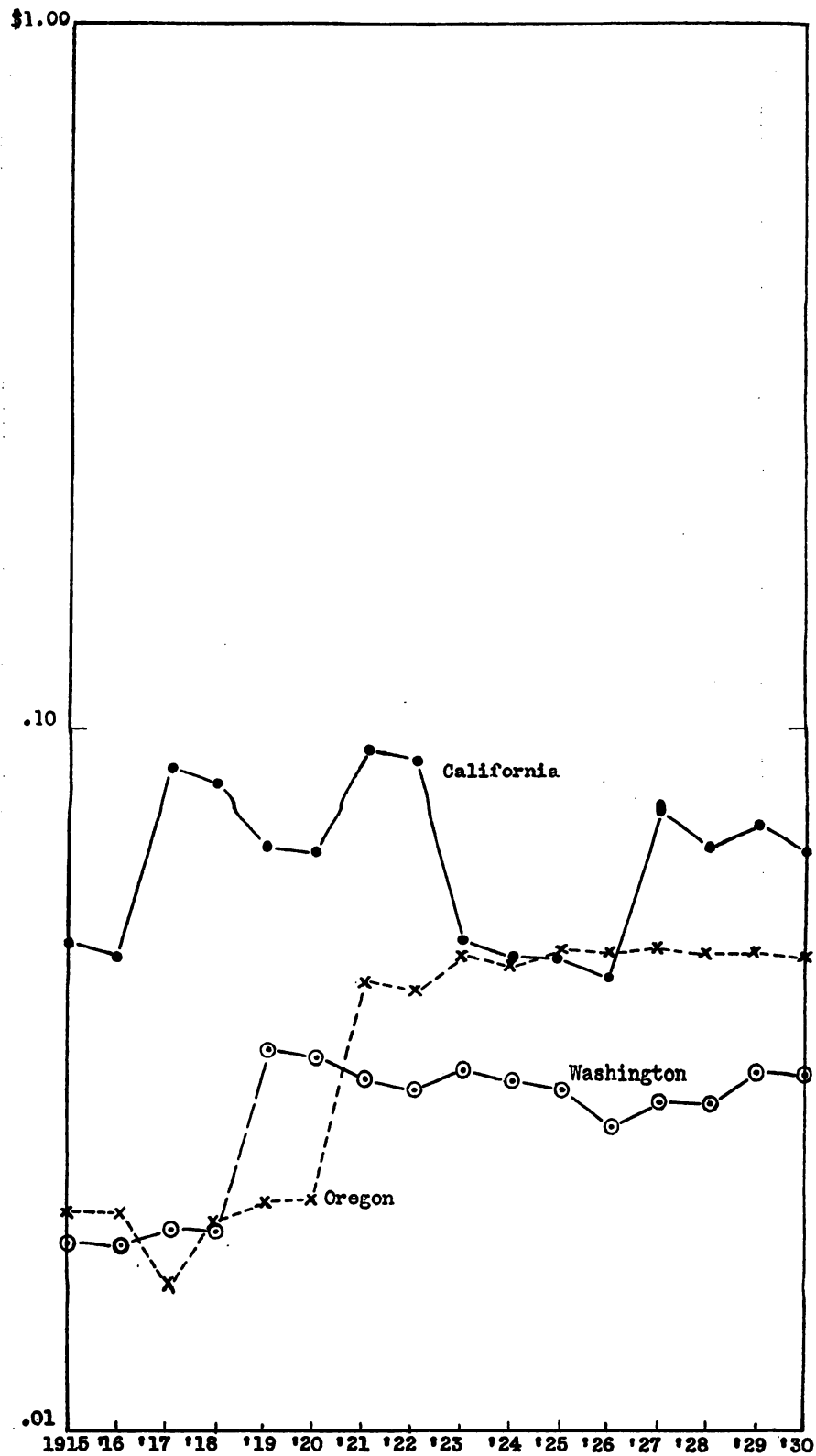
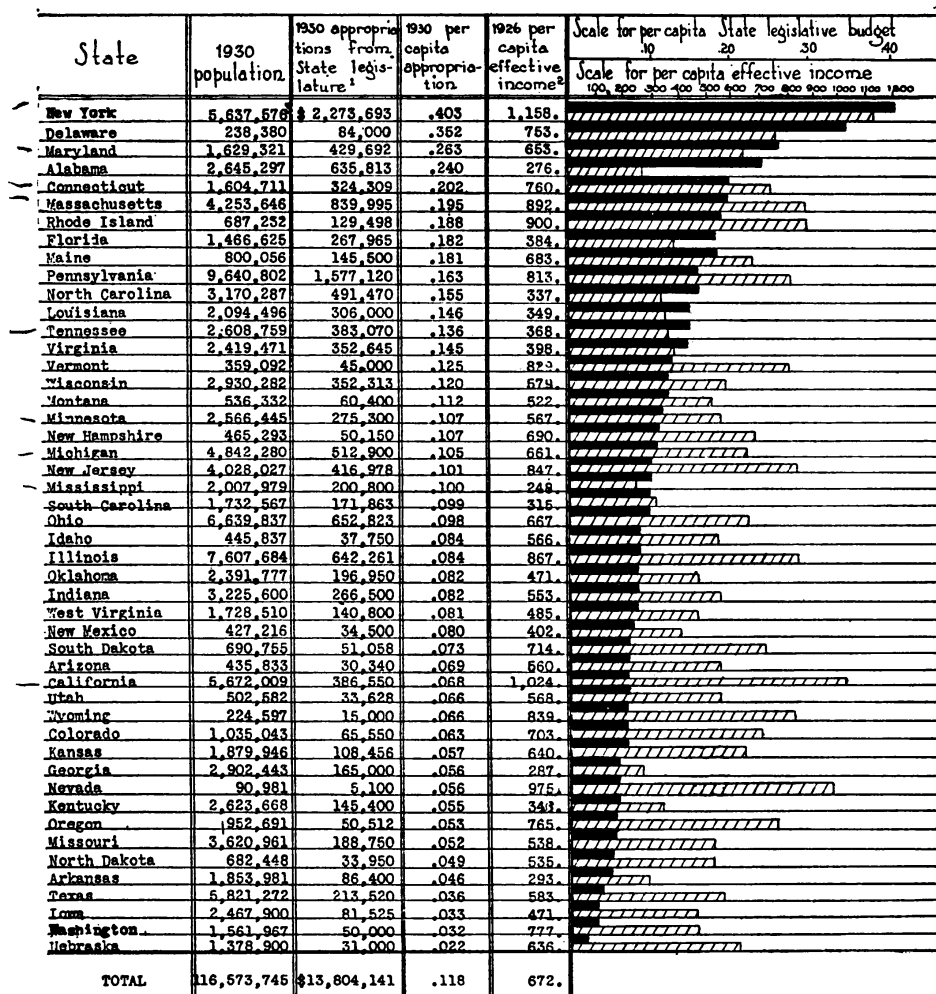


FIGURE 10.—Pacific States. Per capita increase in amounts appropriated by the State legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

from each congressional district) appointed by the governor. The attorney general of the State and the commissioner of health of the city of Baltimore are ex officio members of the State board of health of Maryland. In Nevada three physicians are appointed to the State board of health by the governor; the governor and the secretary of state are members ex officio. In New Hampshire the governor and



1 Based on figures exclusive of tuberculosis sanatoria funds

2 Data from "The National Market," courtesy of the Crowell Publishing Company, New York

3 Exclusive of New York City

FIGURE 11.—State legislative appropriation for health work in relation to income on a per capita basis

attorney general are ex officio members. In North Dakota three members are appointed by the governor, the State superintendent of public institutions and the president of the State tuberculosis association being members ex officio. For South Carolina, see page 10.

TERM OF OFFICE

In 42 of the States the terms of office of members of the State board of health expire in alternate or at least in different years so

that at least a part, usually a majority of the board, will be persons who are experienced in handling its affairs. In two States, Arizona and Pennsylvania, all the members go out of office at the same time. In Iowa the terms of all the members may expire at the same time, as the members go out of office according to the time of appointment.

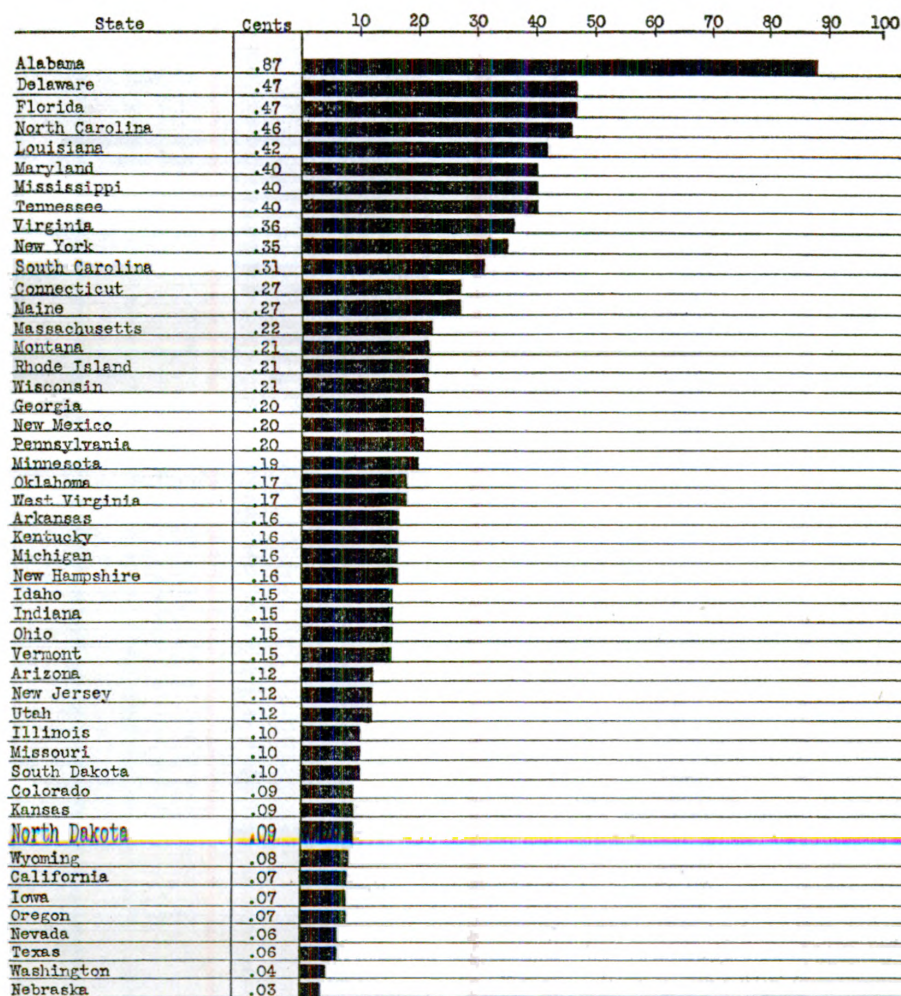


FIGURE 12.—State legislative appropriation in 1930 for health work for every \$1,000 of income in the year 1926

COMPENSATION

With few exceptions membership in the State board of health is honorary, the members being paid traveling expenses and in some instances a modest per diem salary when the State board of health is in session. In 24 States the per diem salary ranges from \$3 to \$20 while in 20 States no salary is paid. Only one State, New York, pays the members of the board a regular salary—\$1,000 a year—though the State of Kentucky pays the president of the board a salary of \$1,200 a year. The per diem compensation of the members of the State boards of health is given in Table 1.

MEETINGS OF THE BOARD

meetings of the State boards of health in the different States greatly. Regular meetings of the boards are held in the last column of Table 1.

EXECUTIVE COMMITTEE

State boards of health of seven States, have executive committees. These States are Kentucky, Maryland, Minnesota, Mississippi, North Carolina, Virginia, and Wisconsin. In Kentucky, this committee meets on call of the secretary and acts in an advisory capacity in matters of policy. In Maryland the committee meets once a month to review the work of the board and to make recommendations. In Minnesota the president, vice president, and three members of the board make up the executive committee. It meets on call of the executive officer or upon request of any member to make recommendations to the board, to act for the board in emergency and in matters delegated to it by the board, and to formulate plans in advance of meetings. In Virginia the executive committee acts as adviser to the executive officer. The executive committee of the Wisconsin State Board of Health is composed of three members authorized to constitute a part of the laboratory committee.

APPROPRIATIONS

Appropriations for health work made by the respective State legislatures have increased since 1915 without exception, although Nevada is very small. (See figs. 2 to 10.) The average appropriation by the State legislatures of 41 States¹ in 1915 was \$0.063 whereas in 1930 it was \$0.118 for 48 States. (See fig. 11) to Figure 11 it will be noted that in 20 of the 48 States the appropriation for health work by the State legislature is between 10 and 19 cents per capita and that in 26 of the 48 States the appropriation is less than 10 cents per capita. New York heads the list with an appropriation of \$0.403 being followed by Delaware with an appropriation of \$0.352 and Maryland with a per capita appropriation of \$0.263.

Figure 12 shows the percentage of total income to the State in 1926 appropriated for health work for every \$1,000 of income. In Alabama, for example, \$0.47 was appropriated for health work by the State; Delaware and Florida, \$0.47 and North Carolina, \$0.47. In this case it will be noted that between 10 and 19 cents inclusive, for every \$1,000 of income is appropriated for health work by the State legislature in 17, or a third,

¹ No State legislative appropriation recorded in 1915 for Arizona, Connecticut, Illinois, Louisiana, New Mexico, South Dakota, and Wyoming.

of the States. There is, however, no correlation between the per capita income and the per capita appropriation for health work of the various States.

TABLE 2.—*Meetings of State legislature and termination of fiscal year, by States*

State	State legislature meets	Fiscal year ends
Alabama.....	January every 4 years ¹	Sept. 30
Arizona.....	January of odd years.....	June 30
Arkansas.....	do.....	Do.
California.....	do.....	Do.
Colorado.....	do.....	Do.
Connecticut.....	do.....	Do.
Delaware.....	do.....	Do.
Florida.....	April of odd years.....	Do.
Georgia.....	June of odd years.....	Dec. 31
Idaho.....	January of odd years.....	Do.
Illinois.....	do.....	June 30
Indiana.....	do.....	Sept. 30
Iowa.....	do.....	June 30
Kansas.....	do.....	Do.
Kentucky.....	January of even years.....	Do.
Louisiana.....	May of even years.....	Do.
Maine.....	January of odd years.....	Do.
Maryland.....	do.....	Sept. 30
Massachusetts.....	January of each year.....	Nov. 30
Michigan.....	January of odd years.....	June 30
Minnesota.....	do.....	Do.
Mississippi.....	January of even years.....	Do.
Missouri.....	January of odd years.....	Dec. 31
Montana.....	do.....	June 30
Nebraska.....	do.....	Do.
Nevada.....	do.....	Do.
New Hampshire.....	do.....	Do.
New Jersey.....	January of even years.....	Do.
New Mexico.....	January of odd years.....	Do.
New York.....	January of each year.....	Do.
North Carolina.....	January of odd years.....	Do.
North Dakota.....	do.....	Do.
Ohio.....	do.....	Dec. 31
Oklahoma.....	do.....	June 30
Oregon.....	do.....	Dec. 31
Pennsylvania.....	do.....	May 31
Rhode Island.....	January of even years.....	June 30
South Carolina.....	do.....	Sept. 30
South Dakota.....	January of odd years.....	June 30
Tennessee.....	do.....	Do.
Texas.....	do.....	Aug. 31
Utah.....	do.....	June 30
Vermont.....	do.....	Do.
Virginia.....	January of even years.....	Do.
Washington.....	January of odd years.....	Dec. 31
West Virginia.....	do.....	June 30
Wisconsin.....	do.....	Do.
Wyoming.....	do.....	Mar. 31

¹ The next meeting is January, 1935.

STATE LEGISLATURES

The State legislatures of 36 of the States meet in January of odd years. (See Table 2.) Six of the State legislatures meet in January of even years and two every January. In addition, the Alabama State Legislature meets every fourth January, the next meeting to take place in 1935; the Florida Legislature in April of odd years; the Georgia Legislature in June of odd years; and the Louisiana Legislature in May of even years.

FISCAL YEAR

The fiscal year of 34 of the State departments of health ends June 30. (See Table 2.) In six States the fiscal year terminates Decem-

ber 31; in four States on September 30; in Massachusetts on November 30; in Pennsylvania on May 31; in Texas on August 31; and in Wyoming on March 31.

2. POWERS AND DUTIES OF THE STATE DEPARTMENTS OF HEALTH

The executive power of the State departments of health of the United States is vested in or delegated to an officer who is designated as secretary of the State board of health, State health officer, director, or commissioner of health. In the following 22 States the executive officer is intrusted also with the duties of secretary of the State board of health:

Arizona.	Kansas.	Nevada.	South Dakota.
Arkansas.	Kentucky.	New Hampshire.	Utah.
Colorado.	Minnesota.	North Carolina.	Vermont.
Delaware.	Mississippi.	Oregon.	Wyoming.
Georgia.	Missouri.	Pennsylvania.	
Indiana.	Montana.	South Carolina.	

In Alabama, Colorado, Maryland, and New Mexico the executive power is vested in the State board itself while it is in session. When the board is not in session the executive power is delegated to the State health officer.

Table 3 gives the powers of the various State departments of health: quasi judicial power; authority to make and enforce rules and regulations concerning public health in general; and power to enforce laws concerning midwifery, milk supplies, food adulteration, and the medical practice act in particular.

QUASI JUDICIAL POWERS

As will be observed from Table 3, 32 State boards of health not only have the power to make and enforce rules and regulations but also to hold hearings and exercise some quasi judicial powers.

LEGISLATIVE AND EXECUTIVE POWERS

All the State departments of health have some authority to make and enforce rules and regulations with regard to sanitation in general, water pollution, sewage disposal, communicable diseases, quarantine, nuisances. In Idaho rules and regulations are enforced, although made, by the department of public welfare. The Tennessee Department of Health has authority to make rules and regulations concerning communicable diseases only, but since this authority is given a broad interpretation by the courts it covers most situations. In Alabama the State department of health has control over sewage disposal only in case it becomes a nuisance. In Arizona the department has no control over water pollution, sewage and nuisances. Florida and Vermont have advisory power

only concerning public water supplies and sewage. In Maine the control of water pollution and sewage disposal is a function of the public-utilities commission. In Rhode Island the prevention of the pollution of public waters not used for drinking purposes and the control of sewage disposal are functions of the State board for purification of waters.

TABLE 3.—*Powers of the State departments of health*

State	Quasi judicial powers	Make and enforce rules and regulations ¹	Midwifery	Milk supplies	Food adulteration	Enforcement of the medical practice act
Alabama.....	Yes.....	Yes ²	Yes.....	Yes.....	No.....	Yes.
Arizona.....	No.....	Yes ³	Yes.....	No.....	Yes.....	No.
Arkansas.....	No.....	Yes.....	Yes.....	Yes.....	No.....	No.
California.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No.
Colorado.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No.
Connecticut.....	Yes.....	Yes.....	Yes.....	No.....	No.....	Yes.
Delaware.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	No.
Florida.....	Yes.....	Yes ⁴	Yes.....	No.....	No.....	No.
Georgia.....	Yes.....	Yes ⁵	Yes.....	No.....	No.....	No.
Idaho.....	No.....	Yes ⁶	Yes.....	Yes.....	Yes.....	No.
Illinois.....	No.....	Yes.....	No.....	No.....	No.....	No.
Indiana.....	Yes.....	Yes.....	No.....	Yes.....	Yes.....	No.
Iowa.....	No.....	Yes.....	No.....	No.....	No.....	Yes.
Kansas.....	No.....	Yes.....	No.....	No.....	Yes.....	No.
Kentucky.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.
Louisiana.....	Yes.....	Yes.....	No.....	Yes.....	Yes.....	No.
Maine.....	Yes.....	Yes ⁸	No.....	No.....	No.....	No.
Maryland.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	No.
Massachusetts.....	Yes ⁷	Yes ^{4, 8}	No.....	Yes.....	Yes.....	No.
Michigan.....	No.....	Yes.....	Yes.....	No.....	No.....	Yes.
Minnesota.....	Yes ⁹	Yes.....	No.....	No.....	No.....	No.
Mississippi.....	Yes ¹⁰	Yes.....	Yes.....	Yes.....	No.....	Yes.
Missouri.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	Yes.
Montana.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No.
Nebraska.....	Yes.....	Yes.....	No.....	No.....	No.....	No.
Nevada.....	No.....	Yes.....	No.....	No.....	No.....	No.
New Hampshire.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	No.
New Jersey.....	Yes.....	Yes.....	No.....	Yes.....	Yes.....	No.
New Mexico.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	No.
New York.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	No.
North Carolina.....	Yes.....	Yes ⁸	No ¹¹	No.....	No.....	No.
North Dakota.....	Yes.....	Yes.....	No.....	No.....	No.....	No.
Ohio.....	Yes ¹²	Yes ⁵	No.....	No.....	No.....	No.
Oklahoma.....	No.....	Yes.....	Yes.....	No.....	Yes.....	No.
Oregon.....	Yes.....	Yes.....	Yes.....	No.....	No.....	No.
Pennsylvania.....	No.....	Yes.....	Yes.....	Yes.....	No.....	No.
Rhode Island.....	Yes.....	Yes ¹³	Yes.....	No.....	No.....	Yes.
South Carolina.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	No.
South Dakota.....	No.....	Yes.....	No.....	No.....	No.....	No.
Tennessee.....	Yes.....	Yes.....	No.....	No.....	No.....	No.
Texas.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	No.
Utah.....	Yes.....	Yes.....	No.....	No.....	No.....	No.
Vermont.....	No.....	Yes.....	No.....	Yes.....	Yes.....	No.
Virginia.....	No.....	Yes.....	Yes.....	No.....	No.....	No.
Washington.....	Yes ¹⁴	Yes.....	No.....	No.....	No.....	No.
West Virginia.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.
Wisconsin.....	Yes ¹⁵	Yes.....	No.....	No.....	No.....	No.
Wyoming.....	No.....	Yes.....	No.....	No.....	No.....	No.

¹ Rules and regulations concerning sanitation, water pollution, sewage disposal, communicable diseases, quarantine, and nuisances.

² Control of sewage disposal only in case a nuisance is created.

³ Except water pollution, sewage disposal, and nuisances.

⁴ Advisory power only regarding water pollution and sewage disposal.

⁵ Control of nuisances under the authority of the local health officers.

⁶ Rules and regulations are enforced, though not made, by the department of public welfare.

⁷ Concerning nuisances under offensive trades only.

⁸ Quarantine measures under local boards of health.

⁹ Concerning offensive trades and pollution of domestic water supplies only.

¹⁰ Concerning quarantine only.

¹¹ Midwives are required to register with the State board of health.

¹² Concerning stream pollution and sewage disposal only.

¹³ Control of waters not used for drinking purposes and the control of sewage disposal by the State board of purification of waters.

¹⁴ Concerning communicable diseases only.

¹⁵ Except in cases of sanitation and quarantine.

Quarantine regulations in Massachusetts are enforced by the local boards of health. In Georgia, Maine, Massachusetts, North Carolina, and Ohio the control of nuisances is a responsibility of the local authorities.

MIDWIFERY

Twenty-four of the States have power to make rules and regulations concerning the practice of midwifery. Two States, Massachusetts and Montana, do not recognize midwives.

MILK SUPPLIES AND FOOD ADULTERATION

The enforcement of laws concerning milk supplies and food adulteration is discussed in the chapter on food and drugs where it will be noted that the State departments of health have the authority to enforce milk laws in 20 States and food and drug laws in 19 States.

MEDICAL PRACTICE ACT

In nine States—Alabama, Connecticut, Iowa, Kentucky, Michigan, Mississippi, Missouri, Rhode Island, and West Virginia—enforcement of the medical practice act is under the jurisdiction of the State board of health. In the remaining 39 States the enforcement of the medical practice act is a duty of the State board of medical examiners or other government department.

3. EXECUTIVE OFFICER

Table 4 gives the title of the executive officer in the various State departments of health, indicates the method by which he is chosen, states whether or not he is elected from and is a member of the board, records the term of office in years, and whether or not necessary traveling expenses are paid.

LEGAL QUALIFICATIONS

The legal qualifications for the State health executive vary greatly in the different States. (See Table 5.) In 38 States the important requirement is that the health officer shall be a physician. Of the remaining 10 States, New Jersey and New Mexico specify that the executive officer must be skilled in sanitary science and must have had experience in public-health administration; Virginia requires the executive officer to be versed in bacteriology and sanitary science; and Delaware requires a trained sanitarian. In Colorado the executive officer must be a citizen and voter; and in Idaho, Louisiana, Minnesota, Rhode Island, and Wisconsin no legal qualifications are required for the position. Alabama requires that the executive officer shall have been a member of the college of counselors of the State medical association for at least five years. Connecticut,

Michigan, South Dakota, and Texas require that he have five years' experience in medical practice, and Illinois that he have five years' practical experience in medicine and six years' experience in public health work. The Arkansas law states that the executive officer shall have had 7 years' experience in the practice of medicine; in New York and Pennsylvania 10 years' experience is required. Sixteen States stipulate that the executive officer shall be licensed or registered to practice in the State. The Colorado, Kansas, Massachusetts, New Jersey, South Dakota, Vermont, and Wyoming laws state that the executive officer must be a resident of the State in which he holds office. In 23 States training or experience in public health is a requirement.

TABLE 4.—Executive officer, 1930

State	Title	Chosen by—	Elected from or out- side of the board	Member of board	Term in years	Necessary traveling expenses
Alabama.....	State health officer.....	State committee of public health.....	Either.....	Yes.....	5	\$750
Arizona.....	State superintendent of public health ¹	Governor with approval of senate.....	Outside.....	Yes.....	2	(¹)
Arkansas.....	State health officer ¹	State board of health ¹	Either.....	No.....	4	1,000
California.....	Director of public health.....	Governor.....	Outside.....	Yes.....	(¹)	Yes. ⁵
Colorado.....	Secretary and executive officer.....	State board of health.....	From board.....	Yes.....	2	(⁶)
Connecticut.....	Commissioner of health.....	Governor.....	Either.....	No.....	6	Yes.
Delaware.....	Executive secretary.....	State board of health.....	Outside.....	No.....	(¹)	1,000
Florida.....	State health officer.....	Governor.....	do.....	Yes.....	4	Yes.
Georgia.....	Secretary and commissioner of health.....	State board of health.....	From board.....	Yes.....	2	Yes.
Idaho.....	Commissioner of public welfare.....	Governor.....	Outside.....	No.....	2	Yes.
Illinois.....	Director of public health.....	Governor with approval of senate.....	do.....	Yes.....	4	Yes. ⁵
Indiana.....	Secretary of the board and State health commissioner.....	State board of health.....	do.....	Yes.....	4	Yes.
Iowa.....	State commissioner of health.....	Governor.....	Either.....	No.....	(¹)	Yes.
Kansas.....	Secretary and executive officer.....	State board of health.....	do.....	Yes.....	4	1,500
Kentucky.....	Secretary of board and State health officer.....	Governor with approval of senate.....	Outside.....	Yes.....	4	Yes. ⁵
Louisiana.....	President of board and State health officer.....	Governor with consent of executive council.....	Either.....	Yes.....	6	Yes.
Maine.....	State commissioner of health.....	Governor.....	From board.....	Yes.....	6	Yes.
Maryland.....	Director of health.....	Governor with approval of council.....	Outside.....	Yes.....	5	Yes.
Massachusetts.....	Commissioner of public health.....	Governor.....	Either.....	No.....	4	Yes.
Michigan.....	State commissioner of health.....	Governor with approval of council.....	do.....	Yes.....	(¹)	Yes. ⁵
Minnesota.....	Secretary and executive officer.....	State board of health.....	do.....	No.....	6	1,800
Mississippi.....	State health officer ¹	do.....	Outside.....	Yes.....	4	Yes.
Missouri.....	Secretary and State health commissioner.....	do.....	Either.....	No.....	4	Yes.
Montana.....	Secretary.....	do.....	Outside.....	No.....	2	Yes.
Nebraska.....	Director of public health.....	Governor.....	From board.....	Yes.....	14	Yes.
Nevada.....	State health officer ¹	do.....	Outside.....	No.....	4	Yes.
New Hampshire.....	Secretary of the board.....	State board of health.....	do.....	No.....	4	Yes.
New Jersey.....	Director of health.....	do.....	do.....	No.....	(¹)	Yes.
New Mexico.....	Director of public health.....	State board of public welfare.....	do.....	No.....	2	(¹)
New York.....	Commissioner of health.....	Governor with approval of council.....	do.....	Yes.....	2	Yes.

¹ Also secretary of the board.

² \$2,500 is appropriated for the traveling expenses of the health department.

³ With the approval of the governor.

⁴ During the pleasure of the governor.

⁵ Traveling expenses outside of State require approval of the governor.

⁶ \$800 is allowed for the traveling expenses of the board, and the secretary may draw on this amount.

⁷ During the pleasure of the State board of health or council.

⁸ The reorganization bill of 1931 created the position of director for the department of public health. The governor appoints the director for a 4-year term with the advice and consent of the senate from a list of not less than 5 physicians, submitted to the governor by the Georgia Medical Association or from the list of qualified public health officers of the U. S. Public Health Service.

⁹ \$5 per day within the State.

TABLE 4.—*Executive officer, 1930—Continued*

State	Title	Chosen by—	Elected from or out- side of the board	Member of board	Term in years	Necessary traveling expenses
North Carolina	State health officer ¹	State board of health ¹¹	Outside	No	6	Yes.
North Dakota	State health officer	Advisory council	do.	No	(7)	(10) Yes.
Ohio	Director of health	Governor	do.	Yes	(1)	Yes.
Oklahoma	State commissioner of health	do.	do.	Yes	4	Yes. ⁵
Oregon	Secretary and State health officer	State board of health	Either	No	4	Yes.
Pennsylvania	Secretary of health	Governor with consent of senate	Outside	No	4	Yes.
Rhode Island	Director of public health	Public health commission	do.	No	(7)	Yes.
South Carolina	State health officer ¹	Executive committee of the State board of health	do.	No	(7)	\$1,000
South Dakota	Superintendent of the State board of health ¹	Governor	From board	Yes	5	Yes.
Tennessee	Commissioner of health	Governor with approval of senate	do.	Yes	(1)	1,500
Texas	State health officer	State board of health	Outside	Yes	2	500
Utah	State health commissioner ¹	do.	From board	Yes	(7)	600
Vermont	Secretary and executive officer	do.	Outside	No	(7)	Yes.
Virginia	State health commissioner	Governor	do.	No	4	Yes.
Washington	Director of health	Governor with consent of senate	Either	Yes	4	Yes.
West Virginia	State health commissioner	do.	Outside	Yes	4	Yes.
Wisconsin	State health officer	State board of health	Either	Yes	(7)	Yes. ⁵
Wyoming	State health officer and secretary of the board	Governor	From board	Yes	4	Yes.

¹ Also secretary of the board.⁴ During the pleasure of the governor.⁵ Traveling expenses out of State require approval of the governor.⁷ During the pleasure of the State board of health or council.¹⁰ \$3,750 is appropriated for the traveling expenses of the staff, including 2 traveling clinics.¹¹ According to the reorganization bill of 1931 the executive officer is elected by the board, subject to the approval of the governor, to serve for 4 years.

TABLE 5.—*Legal qualifications for executive officer*

Alabama.....	Citizen and member of the college of counselors of the State medical association.
Arizona.....	Licensed practicing physician of the State.
Arkansas.....	Licensed physician with 7 years' practice in the State.
California.....	Licensed practicing physician of the State.
Colorado.....	Citizen and voter in the State.
Connecticut.....	Physician with at least 5 years' experience; skilled in sanitary science; experienced in public-health administration.
Delaware.....	Trained sanitarian.
Florida.....	Physician skilled in sanitation and licensed to practice in the State.
Georgia.....	Physician licensed in State. ¹
Idaho.....	No legal qualifications.
Illinois.....	Licensed physician with 5 years' practical experience and 6 years' experience in public health.
Indiana.....	Licensed physician of good moral character, thoroughly informed and experienced in hygiene and sanitation.
Iowa.....	Physician specially trained in public health.
Kansas.....	Physician and resident of the State for at least 7 years.
Kentucky.....	Licensed physician trained in public-health administration.
Louisiana.....	No legal qualifications.
Maine.....	Physician skilled in sanitary science and experienced in public-health work.
Maryland.....	Physician skilled in public health and hygiene.
Massachusetts.....	Physician trained in preventive medicine and a citizen of the State.
Michigan.....	Registered physician with 5 years' experience or a degree of doctor of public health.
Minnesota.....	No legal qualifications.
Mississippi.....	Physician versed in bacteriology, hygiene, sanitary science, and equipped to execute duties.
Missouri.....	Physician skilled in sanitary science and experienced in public-health administration.
Montana.....	Registered physician and surgeon with experience in health work.
Nebraska.....	Citizen and doctor with experience in public-health work.
Nevada.....	Registered physician versed in public-health work and sanitation.
New Hampshire.....	Physician.
New Jersey.....	Resident skilled in sanitary science and experienced in public-health administration.
New Mexico.....	Person trained and experienced in sanitary science and public-health administration.
New York.....	Physician with 10 years' experience; skilled in sanitary science and public-health work.
North Carolina.....	Physician registered in State.
North Dakota.....	Physician with special training in public health. Need not be a resident.
Ohio.....	Physician skilled in sanitary science.

¹ According to the reorganization bill of 1931 the executive officer must, in addition, have had not less than 5 years' experience.

Oklahoma.....	Graduate of a recognized school and a licensed physician.
Oregon.....	Reputable physician.
Pennsylvania.....	Graduate of a legally constituted medical college with at least 10 years' professional experience.
Rhode Island.....	No legal qualifications.
South Carolina.....	Licensed practitioner of medicine, skilled in hygiene and public health.
South Dakota.....	Physician with residence in the State and practice of not less than 5 years.
Tennessee.....	Physician trained in the sanitary sciences.
Texas.....	Physician practicing not less than 5 years in the State and a graduate of a recognized medical college.
Utah.....	Licensed physician thoroughly informed and experienced in hygiene and sanitation and skilled in the treatment of contagious diseases.
Vermont.....	Reputable physician practising in State.
Virginia.....	Person versed in bacteriology and sanitary science and equipped to execute duties.
Washington.....	Physician experienced in health and sanitation.
West Virginia.....	Physician skilled in sanitary science and experienced in public-health administration.
Wisconsin.....	No legal qualifications.
Wyoming.....	Resident, physician, and a specialist in public-health work and contagious diseases.

METHOD OF CHOOSING THE STATE HEALTH EXECUTIVE

There are two common methods of selecting the State health executive, namely, by the governor or by the State board of health. In 22 States the choice of the health officer is in the hands of the State board of health. He is appointed by the governor in 24 States, 6 of which require the approval of the State senate and 3 the consent of the executive council. The 2 exceptions are Alabama (where the State health officer is elected by the State committee of public health and confirmed by the State medical association) and South Carolina (where the State health officer is chosen by the executive committee of the State board of health).

The executive officer is elected from outside the membership of the State board of health or council in 25 States; either from or outside in 12 States; and from the State board of health or council in 7 States. (See Table 4.)

EXECUTIVE OFFICER A MEMBER OF STATE BOARD OF HEALTH

In 26 States the executive officer is a member of the State board of health or public health council, in 18 States he is not a member, and in 4 States there is no board of health.

TERM OF OFFICE

The terms of office of the various executive officers vary from 2 to 6 years, as follows:

2 years	4 years		5 years
Arizona. Colorado. Idaho. Illinois. Nebraska. New York. Texas.	Arkansas. Florida. Indiana. Iowa. Kentucky. Louisiana. Michigan. Missouri. Montana.	Nevada. New Jersey. Oklahoma. Oregon. Pennsylvania. Virginia. Washington. West Virginia. Wyoming.	Alabama. Massachusetts. South Dakota.
6 years	During pleasure of board		During pleasure of governor
Connecticut. Georgia. Maine. Maryland. Mississippi. North Carolina.	Delaware. Kansas. Minnesota. New Hampshire. New Mexico. North Dakota. Rhode Island. South Carolina. Utah. Vermont. Wisconsin.		California. Ohio. Tennessee.

FULL-TIME SERVICE

Though not specifically required by law in all States, it was reported that in 1930 every State health executive, with the exception of the health officers of Nevada and Arizona, devoted full time to the service of the State.

SALARY

Table 6 gives for each State the salary of the State health executive for the year 1930. In most States the health officer has no compensation other than his salary, but in a few of the States special compensation is received. For example, the executive officer of the Colorado State Department of Health, in addition to his salary, receives \$5 a day from the embalming board for four or five days yearly and \$12 a year from the United States Census Bureau. In Connecticut the health officer receives \$5 per day when in session with the State board of examiners of embalmers, averaging about \$30 annually. In Delaware the executive officer may receive extra compensation as the State registrar of vital statistics. In addition to his salary the State health officer in Oregon receives \$100 a year as secretary of the State embalming board, \$100 a year as secretary of the State chiropractors' examining board, and \$10 a day while employed as secretary of the State board of cosmetic therapy examiners. The health officer of Wisconsin, in addition to his regular salary, receives \$45 per month from a special license fund.

In comparing the salaries of the executive officers in 1925 with those for 1930, it will be noted that 21 States have increased the

salary of the health officer during this period in amounts ranging from \$3,000 in Maryland and North Carolina to \$500 in Florida, Indiana, New Jersey, and South Carolina. The arithmetic average for the salary of the executive officer is \$5,665 as based on the 1930 amounts. As will be observed from the following grouping of States, a quarter of the State health executives receive \$5,000 a year.

TABLE 6.—Executive office, 1925 and 1930

State	Bureau or division in charge in 1930	Total appropriation for central administration		Personnel		Salary of executive officer		Employees under civil service
		1925	1930	1925	1930	1925	1930	
Alabama.....	Bureau of administration.....	\$11,100	\$51,225	2	7	\$5,000	\$7,500	No.
Arizona.....	Central administration.....	21,855	21,400	13	2	3,800	3,800	No.
Arkansas.....	Bureau of administration.....	13,900	11,800	2	3	5,100	5,000	No.
California.....	Division of administration.....	46,019	46,870	12	12	4,500	6,000	Yes. ¹
Colorado.....	do.....	5,450	2,100	1	1	4,000	4,000	Yes.
Connecticut.....	Bureau of administration.....	17,500	31,500	14	13	6,000	8,000	No.
Delaware.....	do.....	8,500	12,000	2	2	5,000	5,000	No.
Florida.....	do.....	33,722	31,945	9	13	4,500	5,000	No.
Georgia.....	Division of administration.....	17,197	22,500	5	5	6,000	7,500	No.
Idaho.....	Bureau of administration.....	11,930	11,750	15	3	3,000	3,000	No.
Illinois.....	Central division.....	83,090	72,835	11	10	7,000	7,000	Yes.
Indiana.....	Executive division.....	30,000	36,000	11	12	5,000	5,500	No.
Iowa.....	Central administration.....	26,340	42,400	9	12	5,000	5,000	No.
Kansas.....	Executive office.....	7,200	7,500	2	2	4,000	4,000	No.
Kentucky.....	Bureau of administration.....	29,100	28,206	12	14	4,000	5,000	No.
Louisiana.....	do.....	75,000	(²)	13	10	6,000	6,000	No.
Maine.....	Division of administration.....	53,000	60,080	4	4	4,000	5,000	No.
Maryland.....	Executive office.....	12,205	31,155	2	13	4,500	7,500	Yes. ²
Massachusetts.....	Division of central administration.....	29,000	43,650	10	14	7,500	7,500	Yes. ⁴
Michigan.....	Executive office.....	49,780	51,630	10	7	7,500	10,000	No.
Minnesota.....	Division of administration.....	20,368	58,745	10	10	5,400	5,400	No.
Mississippi.....	Bureau of administration.....	20,700	20,700	4	7	5,000	5,000	No.
Missouri.....	Division of central administration.....	25,000	20,000	5	4	5,000	7,400	No.
Montana.....	Central administration.....	8,059	12,980	13	3	5,000	5,000	No.
Nebraska.....	do.....	(³)	(³)	(³)	(³)	3,000	4,000	No.
Nevada.....	do.....	4,250	5,100	1	2	2,500	2,500	No.
New Hampshire.....	do.....	5,300	3,750	4	4	4,000	4,000	No.
New Jersey.....	Bureau of administration.....	(³)	(³)	9	9	6,000	6,500	Yes.
New Mexico.....	Division of administration.....	5,555	8,300	13	14	4,000	4,000	No.
New York.....	do.....	199,692	624,576	52	64	10,000	12,000	Yes. ⁵
North Carolina.....	Central administration.....	76,372	50,645	11	7	5,000	8,000	No.
North Dakota.....	Bureau of central administration.....	5,975	10,500	1	2	3,600	3,600	No.
Ohio.....	Division of administration.....	40,310	112,682	12	9	6,500	6,500	Yes. ⁷
Oklahoma.....	Bureau of administration.....	24,300	59,050	7	7	3,600	4,800	No.
Oregon.....	Division of administration.....	14,900	17,000	14	15	4,800	4,800	No.
Pennsylvania.....	Executive bureau.....	142,500	52,760	6	14	10,000	10,000	No.
Rhode Island.....	Division of central administration.....	28,000	51,505	13	14	3,500	6,000	No.
South Carolina.....	Bureau of supervision and control of health.....	16,884	10,570	3	3	4,500	5,000	No.
South Dakota.....	Division of central administration.....	4,901	11,681	2	2	3,200	3,200	No.
Tennessee.....	Division of administration.....	15,000	20,100	3	4	4,000	5,000	No.
Texas.....	Main office.....	21,150	34,450	10	5	4,500	4,500	No.
Utah.....	Bureau of central administration.....	(³)	(³)	13	13	4,000	4,000	No.
Vermont.....	Central administration and division of vital statistics.....	22,000	22,000	4	4	5,000	5,000	No.
Virginia.....	Bureau of administration.....	21,830	22,580	5	6	5,500	7,500	No.
Washington.....	Central administration.....	18,221	13,284	2	2	5,000	5,000	No.
West Virginia.....	do.....	17,869	22,335	3	3	4,800	4,800	No.
Wisconsin.....	General administration.....	33,440	55,500	122	11	6,540	6,540	Yes.
Wyoming.....	Central administration.....	9,000	15,000	2	2	4,000	4,000	No.

¹ Officials included whose time is devoted to more than one activity.

² Except the executive officer.

³ Formerly received \$2,000. Vetoed in 1925 and now receives salary as director of the division of social hygiene.

⁴ Except the directors of divisions, physicians, and certain members of the institutional staff.

⁵ No specific allotments by bureaus or divisions.

⁶ Except the commissioner and deputy commissioner.

⁷ Except the director, the assistant director, and three assistants.

⁸ In the reorganization bill of 1931 the salary of the executive officer is given as \$6,000.

States arranged according to salary of the executive officer in 1930

\$12,000	\$10,000	\$8,000	\$7,500	\$7,400	\$7,000	\$6,540
New York.	Michigan. Pennsylvania.	Connecticut. North Carolina.	Alabama. Georgia. Maryland. Massachusetts. Virginia.	Missouri.	Illinois.	Wisconsin.
\$6,500	\$6,000	\$5,500	\$5,400	\$5,000		\$4,800
New Jersey. Ohio.	California. Louisiana. Rhode Island.	Indiana.	Minnesota.	Arkansas. Delaware. Florida. Iowa. Kentucky. Maine.	Mississippi. Montana. South Carolina. Tennessee. Vermont. Washington.	Oklahoma. Oregon. West Virginia.
\$4,500	\$4,000		\$3,800	\$3,600	\$3,200	\$2,500
Texas.	Colorado. Kansas. Nebraska. New Hampshire.	New Mexico. Utah. Wyoming.	Arizona.	Idaho. North Dakota.	South Dakota.	Nevada.

TRAVEL

Traveling expenses for the executive officer in line of duty within the State are not limited in 35 of the States. In Mississippi his traveling expenses are estimated at \$1,800 per year; Kentucky and Tennessee allow \$1,500; Arkansas, Florida, and South Carolina, \$1,000; Alabama, \$750; Utah, \$600; Texas, \$500; and New Mexico, \$5 per day within the State. The appropriation for the traveling expenses of the health department of Arizona is \$2,500 per year; in Colorado, \$800; and in North Dakota, \$3,750; the expenses of the executive officer, as a member of the department are included in these amounts. In seven States there are limitations for travel outside of the State, the law requiring the approval of the governor or board of control for such expenditures.

4. CENTRAL ADMINISTRATION

ORGANIZATION

Table 6 gives the name of the central administrative division of each State; the total appropriation, number of persons employed, salary of the executive officer for 1925 and 1930; and states whether employees are under civil service. In all the States the activities of the central administration office are under the general supervision of the executive officer. These activities include the general supervision of the work of all personnel, the direction and coordination of the various divisions or bureaus, the formulation of legislative programs, the appointment of personnel, the preparation of budgets, the answering of correspondence, receiving and preparing reports, keeping of

accounts, making of purchases, payment of salaries, etc. In three States there is a separate division or bureau to handle the accounts and financial records of the department of health. These States, with the amounts appropriated, the personnel, and the salary of the director in 1930, are listed in Table 7.

TABLE 7.—*Accounts, 1930*

State	Bureau or division in charge	Total appropriation	Personnel	Salary of director
Maryland.....	Division of personnel and accounts.....	\$56,049	15	\$4,000
Pennsylvania.....	Bureau of finance.....	191,118	33	5,500
South Dakota.....	Division of records and accounts.....	2,550	2	1,500

In addition to the general activities of the division of central administration, there are certain functions ordinarily assigned to special bureaus which are carried out by the central administrative division in a few States. For example, in 25 States all activities relating to public-health education are under the direct supervision of the division of central administration. In Nebraska, Nevada, New Hampshire, Rhode Island, Vermont, and Wyoming the registration of vital statistics is one of the functions of the central administrative division. In addition, in Arkansas, Delaware, Georgia, Idaho, Nebraska, Nevada, New Mexico,² Oregon, Rhode Island, South Carolina, and Wyoming the central office has charge of epidemiology; and in Nebraska and Wyoming all activities pertaining to sanitary engineering are conducted by the State health officer himself.

The percentage of the total State legislative appropriation (exclusive of tuberculosis-sanatoria funds) expended for central administrative activities has determined the order in which the 45 States are listed in Table 8. Sixteen, or a third, of the States listed expend between 10 and 20 per cent of their total appropriation for activities carried on by the central administrative staff. In the last column the per capita appropriation is given for this activity.

CIVIL SERVICE

In nine States the employees of the State board of health are under civil service. (See Table 6.) In California and Maryland all employees are under civil service except the executive officer; in Massachusetts all employees except the directors of divisions, physicians, and certain members of the institutional staff; in New York all employees except the commissioner and the deputy commissioner; in Ohio all employees except the director, the assistant director, and three assistants.

² Division of preventable diseases authorized in New Mexico but work carried on by central administrative office in 1930.

TABLE 8.—*States arranged according to percentage of State legislative appropriation for health allotted to central administration 1930*¹

State	State legisla- tive appropri- ation	State legisla- tive appropri- ation for central administra- tion	Percent- age	Per capita
Nevada.....	\$5,100	² \$5,100	100.0	0.056
Wyoming.....	15,000	³ 15,000	100.0	.066
Arizona.....	30,340	⁴ 21,400	64.5	.049
Iowa.....	81,525	42,400	52.0	.017
Vermont.....	45,000	⁵ 22,000	48.9	.061
Maine.....	145,500	⁶ 60,080	41.3	.075
Rhode Island.....	129,498	² 51,505	40.0	.074
Oregon.....	50,512	⁶ 17,000	33.7	.017
Idaho.....	37,750	⁶ 11,750	31.1	.026
North Dakota.....	33,950	10,500	30.9	.015
Oklahoma.....	196,950	59,050	30.0	.024
New York.....	2,273,693	24,576	27.5	.110
Washington.....	50,000	13,284	26.6	.085
New Mexico.....	34,500	⁶ 68,300	24.1	.019
South Dakota.....	51,058	11,681	22.9	.016
Montana.....	60,400	12,980	21.5	.024
Minnesota.....	275,300	58,745	21.3	.022
Kentucky.....	145,400	28,206	19.4	.010
Ohio.....	652,823	112,682	17.3	.016
Texas.....	213,520	34,450	16.1	.005
West Virginia.....	140,800	22,335	15.9	.012
Wisconsin.....	352,313	55,500	15.8	.018
Delaware.....	84,000	⁶ 12,000	14.3	.050
Arkansas.....	86,400	⁶ 11,800	13.7	.006
Georgia.....	165,000	⁶ 22,500	13.6	.007
Indiana.....	266,500	36,000	13.5	.011
California.....	386,550	46,870	12.1	.008
Florida.....	267,965	31,945	11.9	.021
Illinois.....	642,261	72,835	11.3	.009
Missouri.....	188,750	20,000	10.6	.005
Mississippi.....	200,800	20,700	10.3	.010
North Carolina.....	491,470	50,645	10.3	.015
Michigan.....	512,900	51,630	10.1	.010
Connecticut.....	324,309	31,500	9.7	.019
Alabama.....	635,813	51,225	8.1	.019
New Hampshire.....	50,150	⁴ 3,750	7.5	.008
Maryland.....	429,692	31,155	7.3	.019
Kansas.....	108,456	7,500	6.9	.003
Virginia.....	352,645	22,580	6.4	.009
South Carolina.....	171,863	10,570	6.2	.006
Massachusetts.....	829,995	43,650	5.3	.010
Tennessee.....	383,070	20,100	5.2	.007
Pennsylvania.....	1,577,120	52,760	3.3	.005
Colorado.....	65,550	2,100	3.2	.002

¹ Data not available for Louisiana, Nebraska, New Jersey, and Utah.² Budget for epidemiology and vital statistics included.³ Budget for vital statistics, sanitary engineering, and epidemiology included.⁴ Budget for vital statistics included.⁵ Budget for epidemiology, vital statistics, public health laboratory, and sanitary engineering included.⁶ Budget for epidemiology included.

DISBURSEMENT OF FUNDS

Table 9 indicates that there is no common method for disbursement of public funds. Each State has its own special plan or system and the details of this plan can readily be obtained from the chapters on the separate States. The State departments of health in nine States are responsible for the disbursement of funds appropriated for their use. Funds are paid by the State treasurer on the vouchers prepared by the State health officer or commissioner of health in 31 States, the State comptroller in 4 States, the State auditor in 3 States, and the central accounting division of the State government in 1 State.

Vouchers must be approved by the State department of health in 15 States, by the State department of health and a State board or official in 11 States, and by a special board, a State official, or both, in 20 States. In 2 States approval of vouchers is not necessary.

PURCHASE OF SUPPLIES

Table 10 indicates the method by which supplies are purchased for the department of health by the various States. This is a function of the State department of health or executive officer in 16 States. In 32 States purchases are made through a bureau or division other than the health department. Twenty-five of these 32 States have a special purchasing bureau, commission, or agent.

TABLE 9.—*Methods of disbursing public health funds*

State	Funds disbursed by—	Upon the approval of—
Alabama.....	State health department.....	State health officer.
Arizona.....	State treasurer.....	State superintendent of public health.
Arkansas.....	do.....	State auditor.
California.....	do.....	Director of public health, controller, and department of finance.
Colorado.....	do.....	State auditor, president, and secretary of the board of health.
Connecticut.....	State comptroller.....	Commissioner of health.
Delaware.....	State treasurer.....	State auditor.
Florida.....	do.....	State comptroller.
Georgia.....	State health department.....	
Idaho.....	State auditor.....	State board of examiners.
Illinois.....	State treasurer.....	State department of finance and the State auditor.
Indiana.....	State auditor.....	State health commissioner.
Iowa.....	State treasurer.....	State audit board.
Kansas.....	do.....	Executive officer and State auditor.
Kentucky.....	State health department.....	President and secretary of board, and State auditing department.
Louisiana.....	do.....	Executive officer.
Maine.....	State treasurer.....	Commissioner, State auditor, and the governor.
Maryland.....	State health department.....	Director of health.
Massachusetts.....	State treasurer.....	Comptroller of the commonwealth.
Michigan.....	State central accounting division.....	
Minnesota.....	State treasurer.....	State department of administration and finance.
Mississippi.....	State health officer.....	Executive committee of the State board of health.
Missouri.....	State treasurer.....	Executive officer.
Montana.....	do.....	State board of examiners.
Nebraska.....	do.....	Secretary of department of public welfare and State auditor.
Nevada.....	do.....	State health officer and State board of examiners.
New Hampshire.....	do.....	Governor and his council.
New Jersey.....	State comptroller.....	State department of health.
New Mexico.....	State auditor.....	Director of public health.
New York.....	State comptroller.....	State department of health.
North Carolina.....	State treasurer.....	State auditor.
North Dakota.....	do.....	State auditing board.
Ohio.....	do.....	State department of finance and State auditor.
Oklahoma.....	do.....	State auditor.
Oregon.....	do.....	Secretary of State.
Pennsylvania.....	do.....	Auditor general.
Rhode Island.....	Public health commission.....	Chairman and another member of the commission or the director of public health.
South Carolina.....	State health officer.....	Heads of the bureaus of the health department.
South Dakota.....	State treasurer.....	State auditor.
Tennessee.....	do.....	Commissioner, State division of finance, and comptroller.
Texas.....	do.....	State health officer.
Utah.....	do.....	State health commissioner and State board of examiners.
Vermont.....	do.....	Executive officer, commissioner of finance and State auditor.
Virginia.....	State comptroller.....	State health commissioner.
Washington.....	State treasurer.....	State department of business control and State auditor.
West Virginia.....	do.....	State auditor.
Wisconsin.....	State health department.....	State health officer or assistant.
Wyoming.....	State treasurer.....	State auditor.

TABLE 10.—*Supplies purchased by requisition to—*

Alabama.....	State board of administration.
Arizona.....	State superintendent of public health.
Arkansas.....	State health officer.
California.....	State department of finance, purchasing agent in bureau of purchases.
Colorado.....	State auditing board.
Connecticut.....	State department of health, division of supplies.
Delaware.....	Executive secretary of the State board of health.
Florida.....	State health officer.
Georgia.....	State department of health, accounting department.
Idaho.....	State department of public works, bureau of supplies.
Illinois.....	State department of public works and buildings of the division of purchases and construction.
Indiana.....	State health department, division of accounting and purchasing.
Iowa.....	Executive council of the State board of health.
Kansas.....	Secretary of state.
Kentucky.....	State purchasing commission.
Louisiana.....	Executive officer of the State department of health.
Maine.....	State department of supplies.
Maryland.....	State purchasing bureau.
Massachusetts.....	State purchasing bureau of the Commonwealth.
Michigan.....	State central purchasing division.
Minnesota.....	State department of administration and finance, commissioner of purchases.
Mississippi.....	State health officer.
Missouri.....	State department of health.
Montana.....	State purchasing agent.
Nebraska.....	State purchasing agent.
Nevada.....	State health officer and State board of health.
New Hampshire.....	State purchasing agent.
New Jersey.....	State purchasing agent.
New Mexico.....	Director of public health.
New York.....	State department of standards and purchase.
North Carolina.....	State central purchasing officer.
North Dakota.....	State supply department.
Ohio.....	State department of finance.
Oklahoma.....	State board of public affairs.
Oregon.....	State board of control.
Pennsylvania.....	State department of property and supplies, State purchasing agent.
Rhode Island.....	State department of health.
South Carolina.....	State health officer.
South Dakota.....	State division of finance.
Tennessee.....	State purchasing agent.
Texas.....	State board of control.
Utah.....	State board of examiners acting as a department of supplies and purchase.
Vermont.....	State purchasing agent.
Virginia.....	State purchasing agent.
Washington.....	State department of business control, purchasing division.
West Virginia.....	State department of health.
Wisconsin.....	State bureau of purchases.
Wyoming.....	State board of supplies.

5. LOCAL HEALTH SERVICE

DÉFINITION

A local health service is generally defined as a health service conducted and financed totally or in part by a governmental unit smaller than the State. All States are subdivided into counties³ and all counties into small divisions such as townships, voting precincts, or magisterial districts. The title of the unit into which the county is divided varies with the States. Excepting the New England States and four or five others, including Illinois and Minnesota, the county is the only local unit of government that actually functions on a state-wide basis and has authority to levy and collect taxes and make expenditures for public purposes. From the standpoint of carrying on governmental activities, the township in most States is distinctly rudimentary. In Illinois, Minnesota, the New England States, and a few others the county, on the other hand, is largely rudimentary, and the local governmental activities are carried on in most part by the township. Hence, in all States, from a state-wide standpoint, the local unit of government is either the county or the township, with the incorporated city or municipality presenting a third type of local government whose status as a unit of government usually is fixed by charter or by legislative acts.

CITY OR MUNICIPALITY

The city or incorporated town varies in importance from a small town of 1,000 people or less to great cities, like New York or Chicago. The cities and usually the larger towns operate under special charters from the legislature. The relationship between the State government and the municipal government varies in accordance with the terms of the charters. New York State, for example, has no control over the New York City health activities, whereas in Alabama and Mississippi there are no city health departments, the health work in all cities and municipalities of these States being conducted on a county basis. The local health service is of importance, but it is too varied to be satisfactorily discussed in this report which relates to State health organizations. The American Child Health Association in 1925 published a survey of 86 cities having a population (1920) ranging from 40,000 to 70,000, and the United States Public Health Service in 1926 published a survey of the 100 largest cities in the United States. There would seem to be no occasion, therefore, in this report to dwell at length on city health departments. It is enough to state that the relationship of the State health service to that of the municipality in some localities may be advisory and in others supervisory, as stipulated in the city charters.

³ In Louisiana the county is termed the parish.

TOWN OR TOWNSHIP

The township, as a governmental unit for health purposes in the absence of large towns, as a rule has not afforded a satisfactory unit for local health work. Its limited population and wealth preclude the employment of full-time professional personnel. Accordingly, in the States where the township rather than the county is the local unit of government, it has been necessary to centralize in the State health department responsibility for state-wide health service to a much greater degree than in States with a substantial county government. Before the advent of good roads, automobiles, and telephones, the small governmental unit of the type found in New England was necessary. Once a plan of government is established in a conservative community, changes occur slowly. In recent years, however, in many sections of the country there has developed a distinct tendency toward the adoption of larger units of government, not only for public health but for other governmental functions. Not only is there agitation for changing from the township to the county plan of government, but also for the consolidation of small or weak counties to form stronger ones. The township health service consists usually of a part-time health officer, who may be a physician or a layman. Sometimes the services of a nurse are engaged, but in general, except in densely populated townships, very little routine preventive health work is done except by staff members of the State department of health or those of voluntary health agencies. The State health officers who are accustomed to the township basis, as a rule report it as unsatisfactory and yet any proposal to change to the county plan arouses violent opposition. Suffice it to say that where the township is the local governmental unit, there is very little in the way of a full-time professionally trained staff, except that employed by the State.

COUNTY

In at least three-fourths of the States of the Union, the county is the unit of local government. The establishment of a part-time health service, usually with a physician employed to deal with epidemics, has been customary and has dated, in most States, from the establishment of the State department of health. This arrangement, as in the case of the township plan, has, as a rule, accomplished little and has not satisfied the State health officers. A realization of this fact has led to the development of county health organizations on a full-time basis, with professionally trained personnel. This is a new development. In 1915, for example, there were only 14 such organizations in the United States, whereas at the close of 1930 there were 534, distributed in 34 States. Florida and Iowa have adopted permis-

sive laws recently allowing a change from the present basis to the county basis for health work, and similar laws have been sought in Delaware, Illinois, Indiana, and Minnesota. Figure 13 gives some indication of the extent to which the county health work has grown.

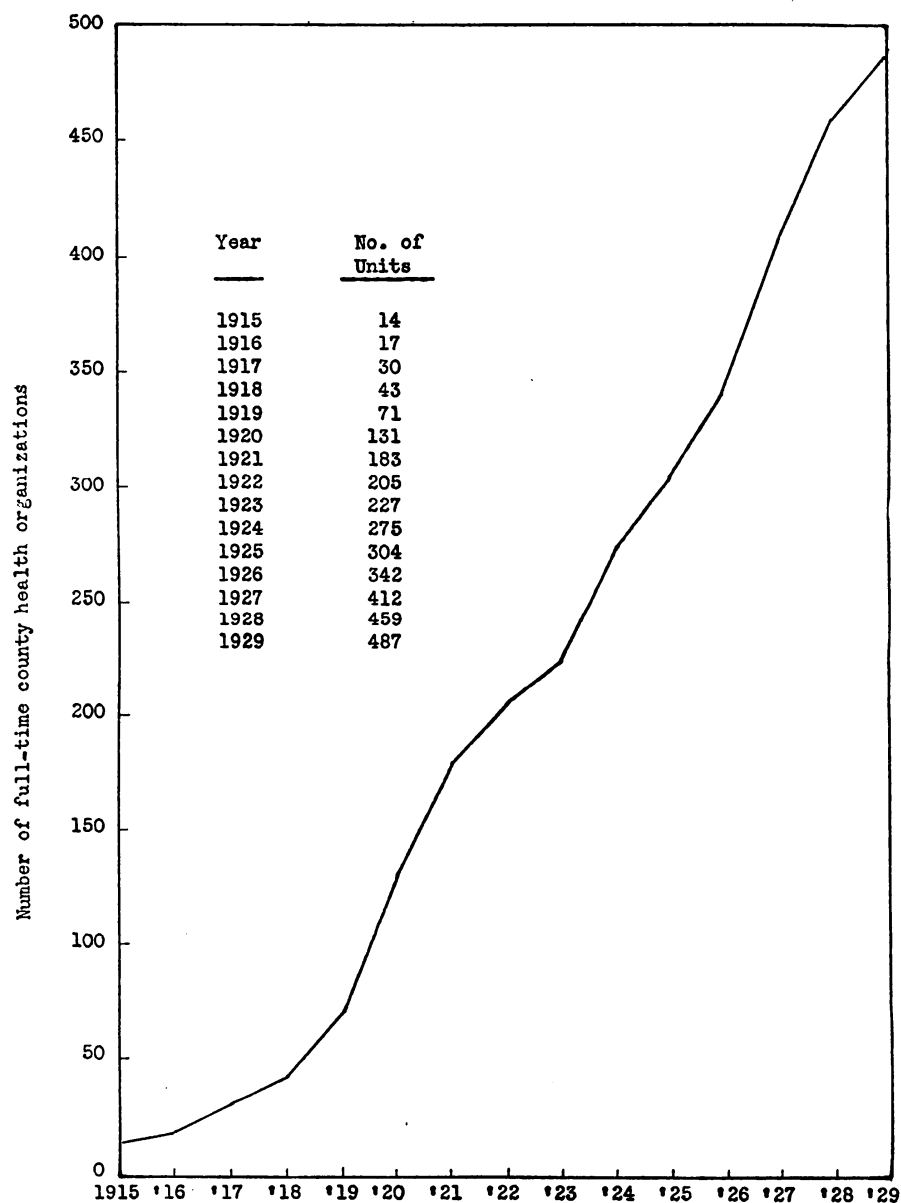


FIGURE 13.—Growth in the number of full-time county health organizations, 1915-1929

Generally there is intimate cooperation, involving joint administrative and financial responsibilities, between the State and county health officials. The county health organization has now developed to a point where its importance, like that of the city health service, merits a separate study and report. In view of the newness and rapid growth

of the county health department as part of the State health organization, we shall refer to it again.

RELATIONSHIP BETWEEN THE STATE AND LOCAL HEALTH SERVICES

The relationship between State and local health services varies widely. Usually, if the local health organization, whether city, county, or township, fails to function, particularly during an emergency the State health officer may assume charge of the situation, do what to him seems necessary, and require the local government to pay the cost. In general, although there are exceptions, the State's responsibility for supervising or directing city health work is slight. Its responsibility usually is somewhat greater with reference to the county or township. Likewise when a full-time professionally trained staff can be employed, whether by county or municipality, the necessity for using State personnel, except in an advisory capacity, is diminished to a large extent. The work under a real local health department usually is intensive and efficient. A number of State health officers, accordingly, have deliberately decentralized the State organization to a considerable degree and applied the funds thus saved to cooperating with the county government upon a partnership basis in maintaining full-time, well-rounded organizations. The legal authority of the State over the local boards of health and the method of applying it are mentioned in each State summary.

In the smaller State health organizations, the responsibility for advising or directing the local health services rests directly upon the State health officer. When it is feasible for the State department of health to have four or five basic divisions, each with a competent director, the responsibility of supervising local health service may be delegated to one, as, for example, the division of preventable diseases or of epidemiology. Again, there may be, besides the functional division heads, one or more deputies to whom may be assigned the task of supervising the local health services. Where a number of deputies or district health officers are employed, the State is subdivided into districts by lines arbitrarily drawn, in some instances to embrace groups of counties, and in others without regard to the county boundaries. This is commonly referred to as the district plan of local health service.

DISTRICT PLAN

The so-called district plan is operating in Florida, Illinois, Maine, Maryland, Massachusetts, New York, and Pennsylvania. In these States, although there is a varying amount of health work conducted by the local government—city, township, or county—and the State has a varying amount of authority (from none to actual jurisdiction) for supervising it, the district plan generally has contemplated actual

carrying on of local health work by State employees. Under this system, the State may have two, three, or more separate groups of workers in each district, whose work may not be directed by the district health officer and consequently it is not closely coordinated. In Florida, for example, the 67 counties are grouped into eight districts. Under the bureau of communicable diseases in 1930 there were six district health officers; under the bureau of child hygiene and public-health nursing there were eight district nurses, one assigned to each health district; and under the bureau of sanitary engineering there were seven district sanitary engineers or inspectors. Hence, in each district there are three representatives of the State department of health, each having his own chief, and even if efforts were made to have one acquainted with the work and the plans of the others, the task would be difficult. As a result, it is not easy to have the State department of health present a solid front, based upon coordinated effort, to the local authorities. In Maine the 16 counties are grouped into seven districts, in each of which there is a district health officer and a district nurse.

Where the development of county health departments has made substantial headway, the counties are grouped into districts for administrative purposes. The public-health nurses and sanitary inspectors are engaged on the county staff and serve under the county health officer, who, in turn, is supervised by the district health officer. Obviously, it is not necessary under this plan to have as many districts as where the State's personnel attempts actually to do the local work.

Under the district plan the duties of the district personnel vary with the size of the district and the number and type of local health workers available. Epidemiology or communicable disease control is, of course, important. Inspection of water and sewer systems, rural sanitation, child hygiene, medical inspection of schools, public-health education, etc., claim attention.

In compact States, like Connecticut, the specialized services of the basic divisions can be directed from the central office by the division chief without the employment of the district plan.

THE COUNTY PLAN, FULL-TIME BASIS

The county plan, so long as it is restricted to a part-time physician whose main occupation is the private practice of medicine, is little better than a similar arrangement under the township plan. Where, however, there is a county health department having a full-time trained staff consisting of a medical health officer, one or more nurses, one or more sanitary inspectors, and one or more office assistants, it is possible to render a more intensive health service to the county than could be expected of the personnel the State usually can pay and direct, either from the central office or under the district plan. The

health officer under the county plan is director. He is able to obtain, through the appropriate administrative channel, consultant service from any of the divisions of the State organization in the fields of laboratory diagnosis, sanitary engineering, statistics, child hygiene, public-health nursing, tuberculosis, venereal diseases, etc. Since the routine health work can be carried on by the county personnel, it is unnecessary for the State to develop or maintain the very large organi-

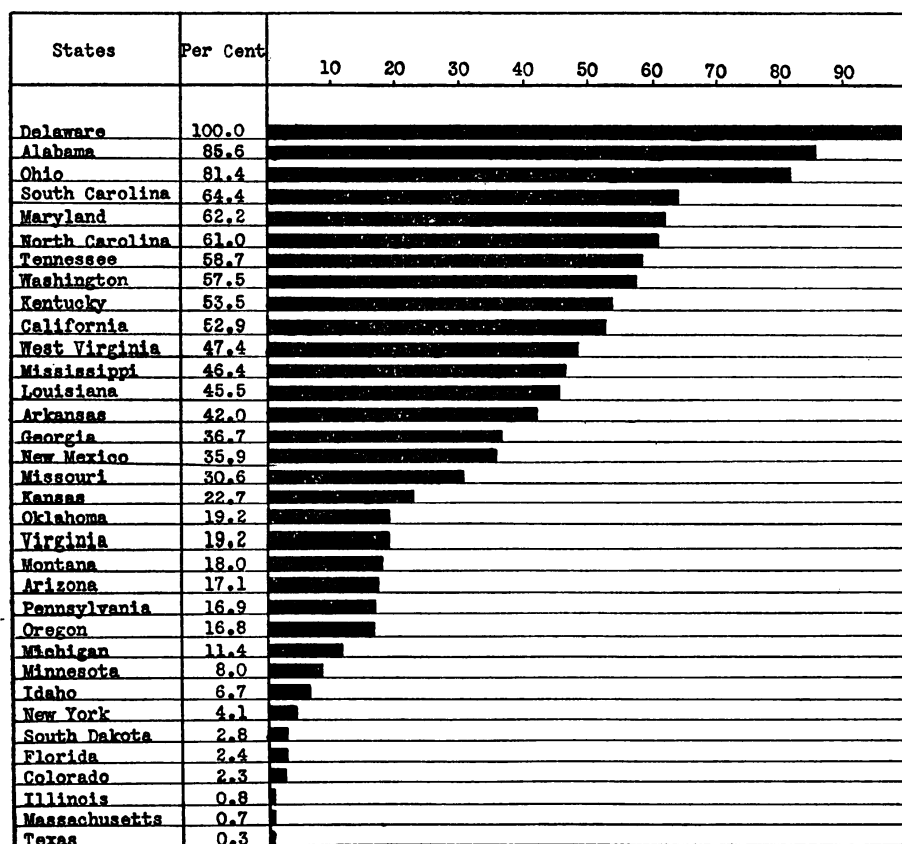


FIGURE 14.—Percentage of the total population having a full-time county health service in 34 States on December 31, 1929

zation which would be necessary if the States attempted actually to carry on the local work. The State usually pays a share of the cost of the county service in varying amounts from an insignificant percentage to more than half. The States which have established county health organizations on a full-time basis are listed in Table 11, together with the total number of counties in each State, the number of counties with full-time health organizations in 1929, the per cent of the total number of counties with full-time health organizations, and the per cent of the total population served by full-time county health organizations.

It will be noted from Table 11 that Florida, Maryland, Massachusetts, New York, and Pennsylvania, which are organized on the

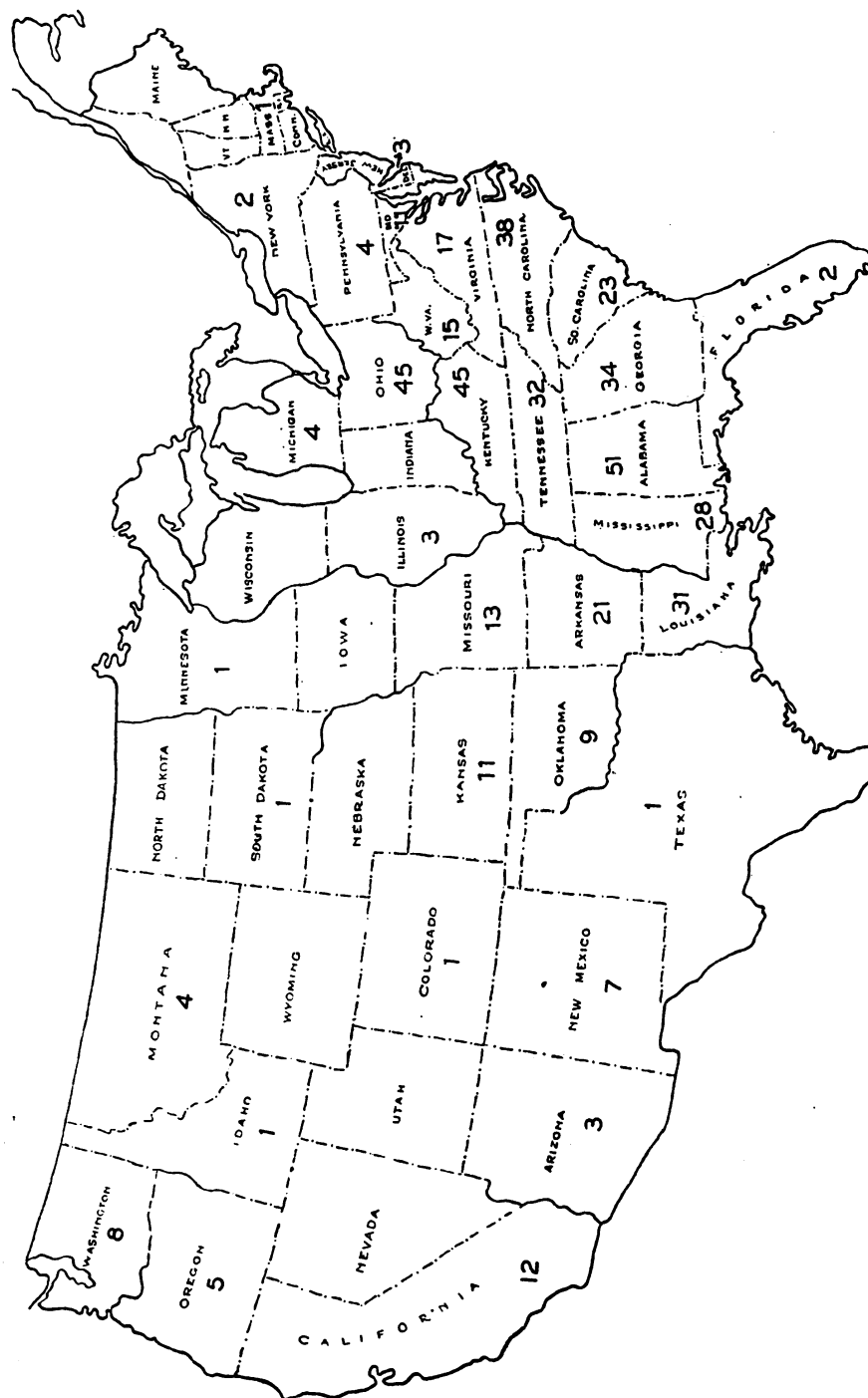


FIGURE 15.—Map showing the number of full-time county health organizations in each State, December 31, 1929. Total, 487

centralized or district plan, have established one or more full-time county health units. A distinct trend toward the county plan is noted in Maryland, which in 1930 had 14 full-time county units.

In 1930 the only States that did not have one or more full-time county health units were the New England States (with the exception of Massachusetts, which had one full-time unit) and the following nine States: Illinois,⁴ Indiana, Nebraska, Nevada, New Jersey, North Dakota, Utah,⁵ Wisconsin, and Wyoming.

The relationship of the State department of health to the local departments in each State is fixed by law, and it may be advisory or supervisory. In Oklahoma, South Carolina, and Wyoming, for example, the county health officer is appointed by the State health officer. In Georgia the county health officer is appointed by the local authorities, subject to the approval of the State health officer. Generally, the local authorities have the right to make appointments, fix salaries, and assign duties. Local health officers in practically all States are required to enforce all provisions of State health laws and regulations. Although the question of authority is at times important, the best results, according to the State health officers, are obtained generally when the question does not arise but where, in a fine spirit of cooperation, there is an official and financial partnership between the State and local health authorities and a program of procedure agreeable to both is voluntarily adopted. The State's aid, administrative and financial, is sufficient, as a rule, to insure cooperation and support from the local authorities. Both central and local officials desire efficient service and they willingly follow a plan designed to procure the services of competent and trained employees.

TABLE 11.—*Number and percentage of counties having full-time service and per centage of population having full-time service in 34 States on December 31, 1930*

State	Total number of counties	Number of full-time counties	Per cent full-time service	1930 population	Population having full-time service Dec. 31, 1930	Per cent full-time service
Alabama.....	67	53	79.1	2,646,248	2,328,796	88.0
Arizona.....	14	6	42.9	435,573	310,535	71.3
Arkansas.....	75	24	32.0	1,854,482	872,138	47.0
California.....	58	13	22.4	5,677,251	3,106,237	54.7
Colorado.....	63	1	1.6	1,035,791	24,393	2.4
Delaware.....	3	* 3	100.0	238,380	238,380	100.0
Florida.....	67	3	4.5	1,468,211	48,058	3.3
Georgia.....	161	31	19.3	2,908,506	1,011,974	34.8
Idaho.....	44	1	2.3	445,032	29,828	6.7
Iowa.....	99	2	2.0	2,470,939	121,492	4.9
Kansas.....	105	12	11.4	1,880,999	436,718	23.2
Kentucky.....	120	43	35.8	2,614,589	1,379,052	52.7
Louisiana.....	64	31	48.4	2,101,593	953,042	45.3
Maryland.....	24	14	58.3	^b 827,580	655,435	79.3
Massachusetts.....	14	1	7.1	4,249,614	32,305	0.8
Michigan.....	83	21	25.3	4,842,325	703,198	14.5
Minnesota.....	87	1	1.1	2,563,953	204,596	8.0
Mississippi.....	82	28	34.1	2,009,821	937,791	46.7
Missouri.....	114	13	11.4	3,629,367	1,135,293	31.3
Montana.....	56	4	7.1	537,606	97,271	18.1
New Mexico.....	31	8	25.8	423,317	162,320	38.3
New York.....	62	4	6.5	^c 5,657,619	786,105	13.9

* These counties are reported by the State health department as regular full-time counties but are financed entirely by the State.

^b Exclusive of Baltimore city.

^c Exclusive of New York City.

⁴ There were 6 full-time county health units in Illinois, 1922-1929, which have been discontinued.

⁵ There were 6 full-time county health units in Utah, 1924-1928, which have been discontinued.

TABLE 11.—*Number and percentage of counties having full-time service and percentage of population having full-time service in 34 States on December 31, 1930—Continued.*

State	Total number of counties	Numbr of full-time counties	Per cent full-time service	1930 population	Population having full-time service Dec. 31, 1930	Per cent full-time service
North Carolina.....	100	39	39.0	3,170,276	1,972,676	62.2
Ohio.....	88	45	51.1	6,646,697	5,415,382	81.5
Oklahoma.....	77	9	11.7	2,396,040	477,553	19.9
Oregon.....	36	6	16.7	953,786	216,361	22.7
Pennsylvania.....	67	3	4.5	9,631,350	1,916,245	19.9
South Carolina.....	46	23	50.0	1,738,765	1,121,988	64.8
South Dakota.....	69	1	1.4	692,849	20,080	2.9
Tennessee.....	95	41	43.2	2,616,556	1,669,803	63.8
Texas.....	254	1	0.4	5,824,715	19,323	0.3
Virginia.....	100	26	26.0	2,421,851	569,896	23.5
Washington.....	39	8	20.5	1,563,396	898,655	57.5
West Virginia.....	55	15	27.3	1,729,205	825,734	47.8
Total.....	2,519	534	21.2	89,904,282	30,698,653	34.1

* These counties are reported by the State health department as regular full-time counties but are financed entirely by the State.

For those full-time county organizations operating throughout the year 1929, Table 12 gives the population by States, the total budget, the per capita appropriation, the assessed valuation of property, the millage tax for health work, and the number of full-time health officers, inspectors, nurses, clerks, and others employed. It will be noted that the appropriation for rural or county health work for 443 full-time counties in 31 States averaged on a per capita basis 32 cents in 1929, as compared with 31 cents in 1925, and on a millage basis 4 cents per \$100 valuation of property in 1929, as compared with 3 cents in 1925. Based on the total population of 22,803,163 for 443 counties in 31 States, it has been observed that in 1929, 1 medical health officer served 38,715 people, 1 sanitary inspector served 48,007 people, 1 public-health nurse served 24,652 people, and 1 clerk or helper served 35,910 people.

TABLE 12.—Data on full-time counties operating throughout 1929

State	Number of units	Population of full-time units operating throughout 1929	Total budget, 1929	Per capita tax	Assessed valuation of property, 1922	Mill tax	Number of full-time personnel					
							Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks	Others
Alabama.....	49	2,189,237	\$813,819	\$0.37	\$829,812,000	\$0.0009	51	1	75	97	48	51
Arizona.....	3	72,710	20,160	.27	184,718,000	.0001	3		2			
Arkansas.....	21	774,219	221,285	.28	276,643,000	.0008	21	2	23	25	8	3
California.....	10	2,775,027	1,726,466	.62	1,882,774,000	.0009	149		110	137	107	79
Colorado.....	1	24,081	9,300	.39	33,200,000	.0003	1			2	1	
Delaware.....	1	235,477	29,150	.12	227,070,000	.0001	3				3	
Florida.....	2	34,522	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Georgia.....	31	1,023,083	456,104	.45	470,227,000	.0010	32		33	83	25	28
Illinois.....	1	34,143	9,940	.29	25,878,000	.0004	1		1	2	1	
Kansas.....	9	265,718	78,630	.30	516,877,000	.0002	9			12	8	
Kentucky.....	40	1,211,232	335,650	.28	808,296,000	.0004	38		26	57	3	3
Louisiana.....	29	887,079	274,020	.31	555,722,000	.0005	29		20	26	29	1
Maryland.....	9	396,092	130,290	.33	379,930,000	.0003	9			26	9	
Massachusetts.....	1	31,080	13,620	.44	50,020,000	.0003	1		1		1	
Michigan.....	3	519,653	117,050	.23	284,596,000	.0004	5	2	1	12	7	
Minnesota.....	1	204,717	28,665	.14	414,551,000	.0001	1			5	1	1
Mississippi.....	28	922,241	381,415	.41	388,671,000	.0010	28		29	31	13	8
Missouri.....	12	1,003,513	172,114	.17	1,104,455,000	.0002	13		12	27	11	3
Montana.....	3	80,853	52,200	.65	67,490,000	.0008	3		2	9	3	7
New Mexico.....	6	131,097	53,738	.41	83,165,000	.0006	6			2	5	3
New York.....	2	199,308	142,100	.71	251,234,000	.0006	4	4	2	32	10	
North Carolina.....	37	1,711,307	524,293	.31	1,613,705,000	.0002	39	8	27	73	35	
Ohio.....	45	1,458,910	614,681	.42	3,008,484,630	.0002	46	1	26	97	43	4
Oklahoma.....	9	451,661	92,232	.20	262,501,000	.0004	9		6	11	8	
Oregon.....	5	156,989	52,320	.33	137,824,000	.0004	5			10	5	
Pennsylvania.....	14	1,612,281	49,120	.03	2,007,410,000	.00002	3	7		13		
South Carolina.....	20	986,271	174,130	.18	264,081,000	.0007	20		10	22	9	
South Dakota.....	1	19,344	11,675	.60	27,882,000	.0004	1			2		
Tennessee.....	23	1,382,305	342,360	.25	1,100,924,000	.0003	25		35	46	24	
Virginia.....	16	438,026	157,930	.36	262,093,000	.0006	11	1	16	21	9	
Washington.....	7	846,679	112,556	.13	604,551,000	.0002	8	2	6	12	5	
West Virginia.....	14	758,830	188,738	.25	948,954,000	.0002	14		9	20	14	3
Total ⁴	443	22,803,163	7,385,751	.32	19,091,066,630	.0004	589	28	475	925	444	191

¹ These counties are reported by the State health department as regular full-time counties but are financed entirely by the State.

² Not available.

³ Exclusive of Milbank Fund.

⁴ Exclusive of Florida.

HEALTH SERVICE FOR POOR COUNTIES

Public health officials of the United States have for the past 10 years been deeply concerned as to the feasibility of developing a state-wide health service approaching adequacy. It has been found practicable in more than 500 counties to establish county health organizations on a full-time basis through official and financial cooperation between State and county authorities, but the development of this work has been confined very largely to the counties graded as "best" or "good" from an economic standpoint. Even where 50 per cent or more of the population of a State enjoyed full-time county health service, the health authorities were confronted with a serious economic problem in supplying similar service to counties graded—from an economic standpoint—as "fair" or "poor." The principle of employing a fund to insure at least minimum standards of public-school facilities has operated effectively in a number of States. The feasi-

bility of a similar plan for health facilities has been considered by several State health officers and is being tested in Alabama.

In October, 1927, Alabama had 33 full-time county health organizations which served approximately 66 per cent of the State's population. It had 34 counties, representing the remainder of the population in which county health organizations had not yet been established. With very few exceptions the counties not organized would be classed as "fair" or "poor." Many of them had a high percentage of negro population and an exceedingly low per capita income.

It was found that the rural counties already organized were paying for full-time service an average of \$0.18 per capita or \$0.055 per \$100 valuation of property. Two types of budget—the smaller at \$7,000 per year and the larger at \$9,000 per year to begin with—were considered the minimum for the poorer counties. No total county assessment was to exceed \$5,000. The \$0.18 per capita basis and the \$0.055 valuation of property basis differed by about \$14,000 for the 34 counties, roughly an average of \$500. However, in individual cases the variation was three or four times the average. In making allotments to the counties the State health officer adopted usually the basis most favorable to the county in the nearest hundred dollars. In a few cases where the counties were fairly prosperous, the higher basis was adopted.

The State had \$2,500 available yearly to aid every county in the State toward conducting full-time county health work. By combining this amount with the amount to be supplied by the county and subtracting the total from the \$7,000 or \$9,000, there was obtained the amount of the equalization fund necessary for the State to supply. The equalization fund aggregated \$46,300 yearly if all counties should be organized. During 1928 and 1929, 18 "poor counties" were successfully organized under this plan.

BUREAUS OR DIVISIONS OF COUNTY HEALTH WORK

It will be noted that Table 13 gives the name of the division in charge of rural health service, the total appropriation and number of persons employed (both for the central division and the full-time units), the salary of the director of county health work in 1930, and the amount of money specially appropriated by the States for full-time county health service.

TABLE 13.—County health work, 1930

State	Bureau or division in charge	Central division			Full-time units		
		Total ap- propria- tion	Per- son- nel	Salary of di- rector	Total budget	Per- son- nel	Special appropria- tion
Alabama.....	Division of county health work.....	\$25,000	4	\$5,000	\$918,226	292	\$55,000
Arizona.....	Central administration.....				14,460	5	None.
Arkansas.....	Bureau of county health units.....	14,900	5	4,000	238,335	102	7,000
California.....	Division of administration.....				1,734,761	594	None.
Colorado.....	Division of administration.....				9,300	4	None.
Delaware.....	Bureau of administration.....				34,000	13	Yes.
Florida.....	Bureau of communicable diseases.....						None.
Georgia.....	Division of county health work.....	9,500	2	5,000	472,005	207	None.
Idaho.....	Bureau of administration.....				10,400	4	None.
Illinois.....	Central division.....				63,540	26	None.
Kansas.....	Division of cooperative health work.....	23,500	2	12,600	99,830	37	None.
Kentucky.....	Bureau of county health work.....	(²)	7	4,800	250,306	133	None.
Louisiana.....	Bureau of parish health adminis- tration.....	(³)	10	(⁴)	293,980	119	56,000
Maine.....	District health centers.....	40,000	7	(⁵)			40,000
Maryland.....	Executive office.....				115,393	52	115,000
Massachusetts.....					13,620	3	None.
Michigan.....	Bureau of preventive medicine— rural sanitation.....	8,400	3	4,500	122,000	50	30,000
Minnesota.....					28,665	7	None.
Mississippi.....	Bureau of county health work.....	(²)	(²)	4,000	153,486	68	None.
Missouri.....	Division of cooperative county health work.....	60,240	36	3,600	187,252	78	34,000
Montana.....	Central administration.....				61,910	18	None.
New Mexico.....	Division of county health work.....	(⁶)	(⁶)	(⁷)	75,110	29	10,000
New York.....					183,950	52	None.
North Carolina.....	Bureau of county health work.....	8,415	2	4,600	756,921	186	5,000
Ohio.....	Bureau of local organization.....	(⁶)	2	3,300	654,670	176	250,000
Oklahoma.....	Bureau of rural sanitation.....	(²)	(³)	4,600	35,000	34	30,000
Oregon.....	Division of county health work.....	(²)	(²)	(²)	60,395	25	None.
Pennsylvania.....					49,120	23	None.
South Carolina.....	Bureau of rural sanitation and county health work.....	49,788	3	4,400	216,950	72	None.
South Dakota.....	Division of central administration.....				10,680	6	None.
Tennessee.....	Division of administration—Local organization.....	(²)	(²)	3,600	459,562	155	135,000
Texas.....	Bureau of child hygiene.....				10,000	4	10,000
Virginia.....	Bureau of rural health work.....	95,000	7	5,000	280,000	64	None.
Washington.....	Central administration.....				132,436	43	None.
West Virginia.....	Division of rural sanitation.....	40,050	2	4,600	203,414	67	None.

¹ Director of the division of child hygiene also.² Included under full-time county health units.³ Not given.⁴ Paid by the U. S. Public Health Service.⁵ The salaries of the district health officers range from \$3,000 to \$3,300.⁶ Included under the division of administration.⁷ The director of public health is the director of this division.

Sixteen States have separate bureaus of county health work with a director in charge. These States are Alabama, Arkansas, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Missouri, New Mexico, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Virginia, and West Virginia. In 11 additional States the direction of county health work is under the direct supervision of the State health officer, as, for example, Arizona, California, Colorado, Delaware, Idaho, Illinois, Maryland, Montana, Oregon, South Dakota, and Washington. In Florida and Michigan district health work is under the bureau of communicable diseases, and in Texas under the bureau of child hygiene.

STATE EXPENDITURES FOR COUNTY HEALTH SERVICES

Table 14 lists for 1930 by States the number of counties that operated at any time during that year. In addition, the total budget, the source of funds, and the per cent expended by the State toward the support of these counties is given in the table. In Delaware and Pennsylvania the counties are financed entirely by State money. In New York the State paid 50 per cent; in Maryland, 40.5 per cent; in Kentucky, 36.8 per cent; in Tennessee, 32.5 per cent.

The very poor and sparsely settled counties have encountered difficulty, even when aided by the State, in financing full-time health organizations. In Florida, Georgia, Tennessee, and Virginia the feasibility of getting two or more counties to form a health district has been tested. Because of the limited personnel to cover the large area composing the district and the difficulty of maintaining a stable district organization by the voluntary action of separate county boards, the plan is resorted to only because the counties can not function alone. It is too early, however, fairly to appraise this plan of organizing local health service.

TABLE 14.—*Full-time county-health organizations in operation at any time during 1930*

State	Number of units	Total budget	Source of funds					Per cent of total expended by States
			County and county towns	State	U. S. Public Health Service	Other agencies	Rockefeller Foundation	
Alabama.....	53	\$841, 145	\$559, 089	\$198, 813	\$11, 025	\$42, 038	\$30, 180	23. 6
Arizona.....	6	30, 394	23, 028	2, 883	2, 400	—	2, 083	9. 5
Arkansas.....	24	250, 222	144, 028	5, 850	53, 505	1, 740	45, 099	2. 3
California.....	13	1, 652, 647	1, 609, 347	10, 000	8, 150	18, 900	6, 250	0. 6
Colorado.....	1	9, 300	8, 200	—	—	600	500	0. 0
Delaware.....	3	40, 062	—	40, 062	—	—	—	100. 0
Florida.....	13	10, 754	9, 422	—	1, 332	—	—	0. 0
Georgia.....	34	463, 892	444, 204	5, 700	1, 200	5, 550	7, 238	1. 2
Idaho.....	2	15, 300	7, 200	2, 250	3, 600	—	2, 250	14. 7
Illinois.....	1	4, 970	4, 670	300	—	—	—	6. 0
Iowa.....	2	45, 720	36, 470	—	5, 100	2, 150	2, 000	0. 0
Kansas.....	12	99, 065	73, 302	5, 260	8, 463	6, 780	5, 260	5. 3
Kentucky.....	46	376, 010	167, 604	138, 258	44, 218	3, 300	22, 630	36. 8
Louisiana.....	31	305, 505	133, 810	91, 696	49, 317	—	30, 682	30. 0
Maryland.....	14	218, 002	107, 928	88, 378	—	21, 696	—	40. 5
Massachusetts.....	1	14, 000	12, 500	—	1, 500	—	—	0. 0
Michigan.....	21	187, 996	109, 856	15, 000	3, 500	54, 640	5, 000	8. 0
Minnesota.....	1	28, 560	28, 560	—	—	—	—	0. 0
Mississippi.....	28	386, 847	260, 696	71, 775	21, 570	—	32, 806	18. 6
Missouri.....	14	188, 118	102, 579	30, 416	11, 063	36, 284	7, 776	16. 2
Montana.....	4	63, 680	46, 658	1, 200	5, 900	8, 722	1, 200	1. 9
New Mexico.....	8	71, 693	54, 781	4, 859	1, 267	5, 386	5, 400	6. 8
New York.....	4	234, 574	117, 287	117, 287	—	—	—	50. 0
North Carolina.....	39	506, 278	350, 752	120, 673	2, 450	32, 403	—	23. 8
Ohio.....	47	626, 900	538, 586	86, 514	—	1, 800	—	13. 8
Oklahoma.....	11	95, 554	62, 699	22, 852	5, 433	1, 050	3, 520	23. 9
Oregon.....	6	61, 460	51, 605	1, 500	—	—	8, 355	2. 4
Pennsylvania.....	3	36, 782	—	36, 782	—	—	—	100. 0
South Carolina.....	23	187, 080	139, 030	34, 850	—	—	13, 200	18. 6
South Dakota.....	1	10, 680	8, 280	—	2, 400	—	—	0. 0
Tennessee.....	41	476, 349	256, 694	155, 016	12, 400	32, 210	20, 029	32. 5
Texas.....	2	13, 492	6, 920	3, 286	—	—	3, 286	24. 4
Virginia.....	26	178, 374	115, 495	41, 169	300	13, 910	7, 500	23. 1
Washington.....	8	133, 435	128, 835	—	4, 000	600	—	0. 0
West Virginia.....	15	203, 338	162, 088	25, 950	5, 300	—	10, 000	12. 8
Total.....	1 548	8, 068, 178	5, 882, 203	1, 358, 579	265, 393	289, 759	272, 244	16. 8

¹ Data not available for 1 county in Florida.

Summary of source of funds

	Appropriations	Per cent
Counties and towns.....	\$5,882,203	72.9
States.....	1,358,579	16.8
U. S. Public Health Service.....	265,393	3.3
Other agencies.....	289,759	3.6
Rockefeller Foundation.....	272,244	3.4
Total.....	8,068,178	100.0

SPECIAL APPROPRIATIONS

Table 13 shows that in 14 States a special appropriation is made for county health work. These States are Alabama, Arkansas, Delaware, Louisiana, Maine, Maryland, Michigan, Missouri, New Mexico, North Carolina, Ohio, Oklahoma, Tennessee, and Texas.

6. COMMUNICABLE-DISEASE CONTROL

Originally State health organizations were established primarily to combat epidemics. The activities in the early period were devoted largely to quarantine measures, except in the case of smallpox, for which vaccination, as a preventive measure, was available. With the growth of knowledge and the development of specialized branches of health service, such as epidemiology, vital statistics, sanitary engineering, and public-health laboratory service, the work of the health department became more rational. For a time, however, the activities relating to disease control to a large extent were centered around special diseases, such as tuberculosis, venereal diseases, malaria, typhoid fever, diphtheria, and hookworm disease. During the past 15 years there has been a tendency to broaden and balance the work, with a view to applying all available knowledge regarding disease control.

ORGANIZATION

Figure 16 shows in crosshatch shading the 11 States which in 1915 had divisions of communicable-disease control or full-time directors of epidemiology. Twenty-nine additional States, which, by 1930 had authorized a separate bureau or division for communicable-disease control are shown by the single-hatch shading. The State departments of the 8 unshaded States employ no professional personnel specifically for service in connection with this branch of work.

TABLE 15.—Communicable-disease control, 1915, 1925, and 1930

State	Bureau or division in charge in 1930	Appropriations for communicable-disease control			Personnel			Salary of director		
		1915	1925	1930	1915 ¹	1925	1930	1915 ¹	1925	1930
Alabama.....	Bureau of preventable diseases.....		\$8,720	\$36,810		3	17		\$3,200	\$4,400
Arizona.....	Division of epidemiology.....		(²)	5,700		(²)	1		(²)	4,500
Arkansas.....	Bureau of administration.....		19,640	(²)		(²)	(²)		3,900	4,200
California.....	Division of preventable diseases.....	\$52,639	(²)	3,200	1	5	8		(²)	1,800
Colorado.....	Division of epidemiology.....	\$2,900	(²)	27,507		1	2	900	(²)	5,904
Connecticut.....	Bureau of preventable diseases.....		20,000	(²)		5	6		(²)	(²)
Delaware.....	Bureau of administration.....		(²)	(²)		(²)	(²)		3,500	3,600
Florida.....	Bureau of communicable diseases.....	37,484	38,590	44,080	9	10	8		(²)	(²)
Georgia.....	Division of administration.....		(²)	(²)		(²)	(²)		(²)	(²)
Idaho.....	Bureau of administration.....		(²)	(²)		(²)	(²)		(²)	(²)
Illinois.....	Division of communicable diseases.....		108,177	110,278	5	14	18	2,400	4,500	5,000
Indiana.....	do.....		7,500	25,000	4	3	1		3,000	3,300
Iowa.....	Division of preventable diseases and epidemiology.....		(²)	5,400	3	3	2		3,300	4,000
Kansas.....	Division of communicable diseases.....	7,000	9,250	10,700		3	2	2,400	(²)	3,300
Kentucky.....	Bureau of epidemiology.....		(²)	7,523		(²)	3		(²)	4,000
Louisiana.....	do.....		(²)	(²)	1	(²)	4		(²)	(²)
Maine.....	Division of communicable diseases.....		(²)	(²)	6	8	43	1,800	3,840	4,000
Maryland.....	Bureau of communicable diseases.....	12,377	34,568	60,711		14	28	4,000	4,800	6,000
Massachusetts.....	Division of communicable diseases.....	50,300	14 68,470	14 92,500	30	10	11		4,500	7,500
Michigan.....	Bureau of preventive medicine.....		48,983	39,300	7	10	32	3,500	4,500	4,800
Minnesota.....	Bureau of preventable diseases.....	22,000	14 58,050	14 64,781		6	9		4,200	4,200
Mississippi.....	Bureau of communicable diseases.....		38,100	33,188		6	2		(²)	(²)
Missouri.....	Division for control of contagion.....		681	7,000		1	(²)		(²)	(²)
Montana.....	Division of epidemiology.....		(²)	(²)		8	1		2,400	2,400
Nebraska.....	Division of venereal diseases and epidemiology.....		(²)	(²)		12	11	2,750	4,200	4,500
Nevada.....	Central administration.....		6,105	6,000	21	12	16	4,000	5,000	5,500
New Hampshire.....	Division of epidemiology and venereal disease control.....	13,023	(²)	(²)	11	18	16		(²)	5,250
New Jersey.....	Bureau of local health administration.....		2,211	41,437		8	2		3,000	3,000
New Mexico.....	Division of preventable diseases.....		45,110	10,490		11	7	2,250	3,000	3,600
New York.....	Bureau of epidemiology.....		8,500	5,875		3	(²)		(²)	(²)
North Carolina.....	Bureau of preventable diseases.....		(²)	(²)		305	300		5,000	5,500
North Dakota.....	Division of communicable diseases.....	25,774	36,513	44,100		2	5		3,600	3,600
Ohio.....	Bureau of epidemiology.....	5,000	15,000	5,000		2	2		3,474	3,600
Oklahoma.....	Division of epidemiology.....		326,000	320,774		2	2		3,950	(²)
Oregon.....	Division of administration.....		(²)	(²)		2	2		(²)	(²)
Pennsylvania.....	Bureau of communicable diseases.....	326,891	5,400	54,220		4	8		3,600	3,600
Rhode Island.....	Division of central administration.....	1,136	(²)	(²)		2	2		3,474	3,600
South Carolina.....	Bureau of epidemiology.....		10,250	36,300		2	2		3,950	(²)
South Dakota.....	Division of epidemiology.....		10,250	36,300		2	2		3,950	(²)
Tennessee.....	Division of preventable diseases.....		10,250	36,300		2	2		3,950	(²)
Texas.....	Bureau of laboratories.....		4,321	(²)		2	2		3,950	(²)

Utah.....	Bureau of communicable diseases.....	(10)	(11)	• 1	• 2	• 3	3,833	3,600
Vermont.....	Division of communicable diseases.....	(2)	(2)	1	2	2	3,750	3,750
Virginia.....	Bureau of epidemiology.....	6,000	10,975	1	3	3	3,000	5,000
Washington.....	Division of communicable diseases.....	6,250	6,380	• 2	• 3	• 3	5,000	5,000
West Virginia.....	Division of preventable diseases.....	(12)	(12)	1	2	(12)	(12)	(12)
Wisconsin.....	Bureau of communicable diseases.....	13,300	13,300	• 6	5	3	3,500	3,500
Wyoming.....	Central administration.....	(2)	(2)		(2)	(2)	(2)	(2)

¹ Taken from Doctor Chapin's report on State public health work, published by the American Medical Association, 1915.

² Under central administration.

³ Executive officer is the director.

⁴ Moneys for tuberculosis and plague included.

⁵ Division created but no appropriation made.

⁶ Officials included whose time is devoted to more than one activity.

⁷ 1925 salary vetoed by governor.

⁸ Under the State university.

⁹ Included under the bureau of laboratories. (See Table 38, p. 90.)

¹⁰ No specific allotment by bureaus or divisions.

¹¹ Collaborating epidemiologist in charge.

¹² Included under the division of social hygiene. (See Table 22, p. 67.)

¹³ The director of the division of social hygiene is in charge.

¹⁴ Diagnostic laboratory included.

¹⁵ State registrar is the director.

¹⁶ Director of the bureau of laboratories is in charge.

Table 15 shows for each State the name of the bureau or division having charge of communicable-disease control and compares, for the years 1915, 1925, and 1930, the total appropriations, the number of persons employed, and the salary of the director. A number of the State departments of health have limited resources and accordingly are unable to finance special divisions for each important branch of health service. They either combine two or more branches of service under one director or, as in a number of instances, the State health officer has to serve without special assistance. Communicable-disease control from the standpoint of personnel was handled on the following basis in 1930:

	Number of States
By 1 or more full-time epidemiologists (Alabama, Arizona, California, Colorado, Connecticut, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin)-----	32
By the director of venereal-disease control (Maine and West Virginia)-----	2
By the director of the division of epidemiology and venereal disease (New Hampshire)-----	1
By a collaborating epidemiologist (Louisiana)-----	1
By the director of the bureau of laboratories (Texas)-----	1
By the State health officer (Arkansas, Delaware, Georgia, Idaho, Nebraska, Nevada, New Mexico, Oregon, Rhode Island, South Carolina, Wyoming)---	11

Seven States have created separate bureaus or divisions and have made an appropriation for the control of communicable diseases since 1925. These States are Arizona, Colorado, Iowa, Kentucky, Mississippi, North Dakota, and South Dakota.

In comparing the amounts appropriated for epidemiology in 1925 with those in 1930, it will be noted that 16 States have increased their appropriations; among these are Alabama, Maryland, Massachusetts, South Carolina, and Tennessee.

The arithmetic average for the salary of an epidemiologist was \$4,282 as based on the 1930 amounts for 33 States. In comparing the 1925 and 1930 salaries, it will be noted that 16 States increased the salary of the epidemiologist during this period in amounts varying from \$100 to \$3,000. The following nine States added an epidemiologist to their staff: Arizona, Colorado, Iowa, Kentucky, Mississippi, Montana, North Carolina, North Dakota, and South Dakota.

Table 16 lists 31 States that report appropriations specifically for the control of communicable diseases. The percentage of the total State health appropriation that is devoted specifically to communicable-disease control has determined the order in which the States are listed. The per capita amount is recorded in the last column. The percentages range from 31.5 to 1.5. Twenty of the 31 States listed

spent less than 10 per cent of their State health appropriation for this branch of service. The 17 States which do not budget funds specifi-

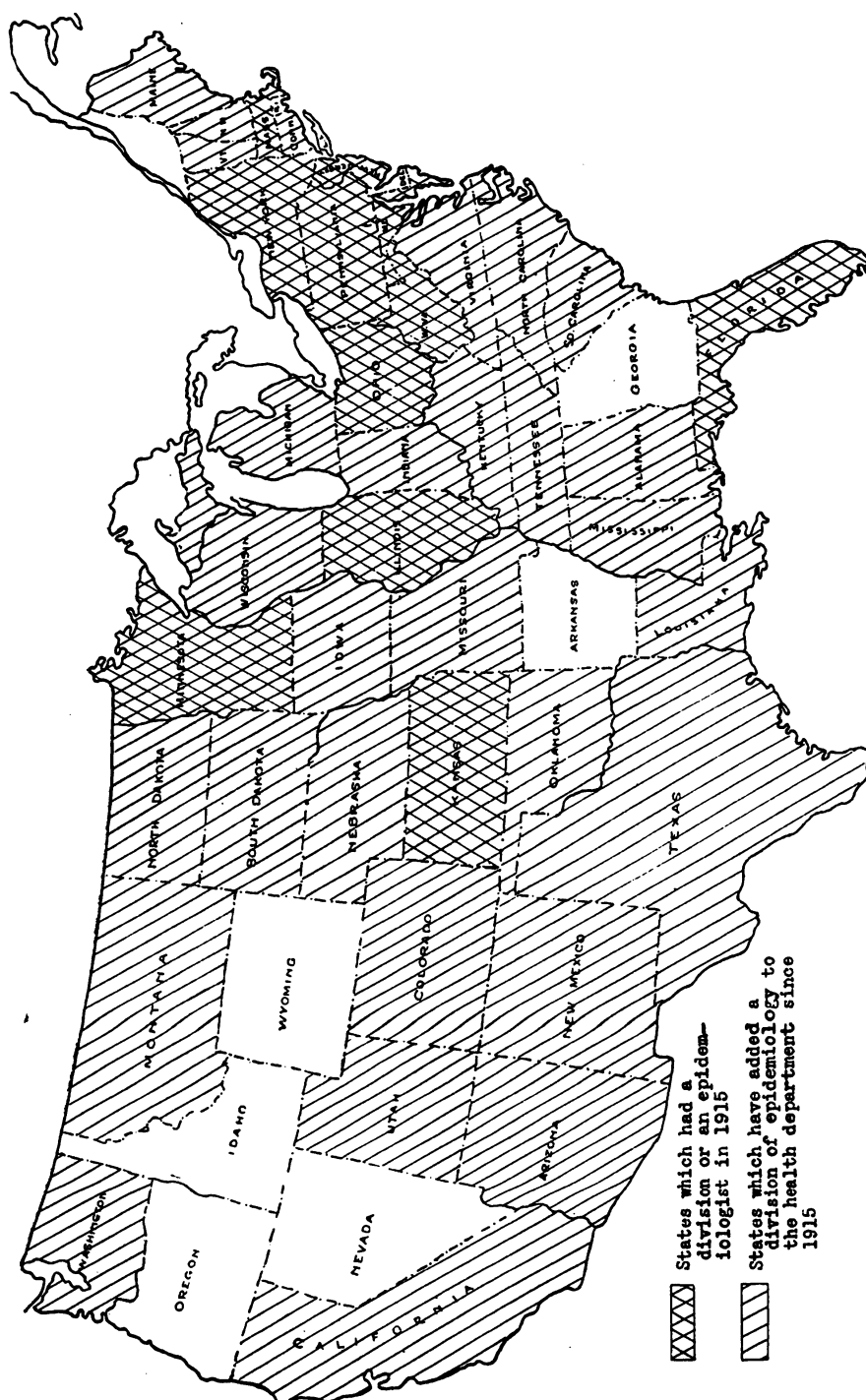


FIGURE 16.—Bureaus or divisions for the control of communicable diseases

cally for the control of communicable diseases are listed in footnote 1, Table 16.

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TABLE 16.—States arranged according to the percentage of total State legislative appropriation for health work allotted to communicable diseases, 1930¹

State	State legis- lative ap- propriation	State legis- lative ap- propriation for communi- cable dis- eases	Percent- age	Per capita
South Carolina.....	\$171,863	\$54,220	31.5	\$0.031
Minnesota.....	275,300	² 64,761	23.5	.025
Pennsylvania.....	1,577,120	320,774	20.3	.033
Missouri.....	188,750	33,189	17.6	.009
Illinois.....	642,261	110,278	17.2	.014
Florida.....	267,965	44,080	16.4	.030
Maryland.....	429,692	60,711	14.1	.037
Alabama.....	635,813	86,810	13.7	.032
Washington.....	50,000	6,380	12.8	.004
New Hampshire.....	50,150	6,000	12.0	.012
Massachusetts.....	829,995	92,500	11.1	.021
Kansas.....	108,456	10,700	9.9	.005
Arizona.....	30,340	2,850	9.4	.006
Indiana.....	266,500	25,000	9.4	.007
South Dakota.....	51,058	4,440	8.7	.006
Connecticut.....	324,309	27,507	8.5	.017
North Dakota.....	33,950	2,875	8.5	.004
Michigan.....	512,900	39,300	7.7	.008
Tennessee.....	383,070	29,500	7.7	.011
California.....	386,650	29,000	7.5	.005
Ohio.....	652,823	44,100	6.8	.006
Montana.....	60,400	3,500	5.8	.006
Colorado.....	65,550	3,200	4.9	.003
Wisconsin.....	352,313	13,300	3.8	.004
Virginia.....	352,645	10,975	3.1	.004
Mississippi.....	200,800	5,800	2.9	.002
Kentucky.....	145,400	4,023	2.8	.001
Iowa.....	81,525	2,200	2.7	.001
Oklahoma.....	196,950	5,000	2.5	.002
New York.....	2,273,693	41,437	1.8	.007
North Carolina.....	491,470	7,157	1.5	.002

¹ Conducted by central administrative staff: Arkansas, Delaware, Georgia, Idaho, Maine, Nevada, New Mexico, Oregon, Rhode Island, Vermont, and Wyoming. Data not available: Louisiana, Nebraska, New Jersey, and Utah. Under bureau of laboratories: Texas. Under division of social hygiene: West Virginia.

² Diagnostic laboratory included.

Table 17 shows for each State the total expenditure in dollars and on a per capita basis for communicable-disease and venereal-disease control for the years 1925 and 1930. In comparing the amounts appropriated for venereal disease for these two years, it will be noted that 12 States have either discontinued the venereal-disease appropriation or now include it with the amount for communicable-disease control.

REPORTING OF DISEASES

Prompt and accurate reporting of communicable diseases is of the utmost importance in any plan designed to control them. Table 18 indicates, for each State, the person, whether physician or health officer, who reports cases of communicable diseases to the State department of health. In the second column the frequency with which reports are made is shown. The third column indicates who enforces the quarantine measures. The fourth relates to smallpox vaccination and the last to emergency funds available for combating epidemics.

Thirty-four States require that the reporting of notifiable diseases to the State authorities be made by the local health officer. Eleven States require either local health officers or physicians to report. In two States (Delaware and Louisiana) the physicians are required to report directly to the State departments of health, and in Utah reports are made by the local health officers and collaborating epidemiologists.

TABLE 17.—*Per capita expenditures for the control of communicable diseases and venereal diseases, 1925 and 1930*

States	Control of communicable diseases				Control of venereal diseases			
	Total budget		Per capita		Total budget		Per capita	
	1925	1930	1925	1930	1925	1930	1925	1930
Alabama.....	\$8,720	\$86,810	\$0.003	\$0.032	\$21,380	(1)	\$0.008	-----
Arizona.....	(2)	5,700	-----	.013	(2)	(2)	-----	-----
Arkansas.....	(2)	(2)	-----	-----	12,500	None.	.006	-----
California.....	19,640	29,000	.004	.005	3,180	(2)	.0008	-----
Colorado.....	None.	3,200	-----	.003	20,000	\$20,000	.019	\$0.019
Connecticut.....	20,000	27,507	.013	.017	10,327	17,067	.006	.011
Delaware.....	(2)	(2)	-----	-----	2,000	3,000	.008	.013
Florida.....	38,590	44,080	.035	.030	(1)	None.	-----	-----
Georgia.....	(2)	(2)	-----	-----	10,000	10,000	.003	.003
Idaho.....	(2)	(2)	-----	-----	3,100	3,000	.006	.007
Illinois.....	108,177	110,278	.015	.014	87,285	79,865	.012	.010
Indiana.....	7,500	25,000	.002	.007	30,693	(1)	.010	-----
Iowa.....	None.	5,400	-----	.002	(3)	(3)	-----	-----
Kansas.....	9,250	10,700	.005	.005	839	1,050	.0004	.0006
Kentucky.....	8,500	7,523	.003	.003	15,000	25,000	.006	.010
Louisiana.....	None.	None.	-----	-----	(1)	(2)	-----	-----
Maine.....	(2)	(2)	-----	-----	14,193	14,170	.018	.018
Maryland.....	34,568	60,711	.022	.037	25,175	(1)	.016	-----
Massachusetts.....	68,740	92,500	.016	.021	31,900	44,700	.007	.011
Michigan.....	48,983	39,300	.011	.008	(1)	None.	-----	-----
Minnesota.....	58,050	64,751	.022	.025	33,063	19,973	.012	.077
Mississippi.....	(2)	10,000	-----	.005	10,000	(1)	.005	-----
Missouri.....	38,100	33,189	.011	.009	(1)	(1)	-----	-----
Montana.....	681	7,000	.001	.013	(2)	(2)	-----	-----
Nebraska.....	(6)	(6)	-----	-----	(6)	(6)	-----	-----
Nevada.....	(2)	(2)	-----	-----	(7)	(7)	-----	-----
New Hampshire.....	6,105	6,000	.013	.013	(9)	(5)	-----	-----
New Jersey.....	(6)	(6)	-----	-----	25,746	28,935	.007	.007
New Mexico.....	2,211	(2)	.005	-----	(1)	(1)	-----	-----
New York.....	45,110	41,437	.004	.007	38,006	57,437	.003	.010
North Carolina.....	8,500	10,490	.003	.003	4,643	(1)	.001	-----
North Dakota.....	None.	5,875	-----	.009	4,200	(1)	.006	-----
Ohio.....	36,513	44,100	.005	.006	22,408	14,000	.003	.002
Oklahoma.....	15,000	5,000	.006	.002	20,000	10,800	.009	.005
Oregon.....	(2)	(2)	-----	-----	3,750	3,800	.004	.004
Pennsylvania.....	326,000	320,774	.035	.033	42,987	30,635	.004	.003
Rhode Island.....	(2)	(2)	-----	-----	10,000	8,460	.015	.012
South Carolina.....	5,400	54,220	.003	.031	None.	None.	-----	-----
South Dakota.....	(2)	6,740	-----	.010	(2)	None.	-----	-----
Tennessee.....	10,250	36,300	.004	.014	2,773	(1)	.001	-----
Texas.....	4,321	(9)	.0008	-----	7,167	None.	.001	-----
Utah.....	(6)	(6)	-----	-----	(1)	(1)	-----	-----
Vermont.....	(2)	(2)	-----	-----	(1)	(1)	-----	-----
Virginia.....	5,000	10,975	.002	.004	4,100	2,500	.002	.001
Washington.....	6,250	6,380	.004	.004	642	(1)	.0004	-----
West Virginia.....	(10)	(11)	-----	-----	21,346	11,000	.013	.006
Wisconsin.....	13,300	13,300	.004	.004	36,370	36,370	.013	.012
Wyoming.....	(2)	(2)	-----	-----	(2)	None.	-----	-----

Under communicable-disease control.

² Under central administration.

³ Under State university.

⁴ Bureau of bacteriology and epidemiology.

⁵ Diagnostic laboratory included.

⁶ Not given.

⁷ Under State hygienic laboratory.

⁸ Bureau of epidemiology and venereal-disease control.

⁹ Included under the bureau of laboratories.

¹⁰ Funds derived from central administration and from the bureau of venereal diseases.

¹¹ Included under division of social hygiene.

TABLE 18.—Control of communicable diseases, 1930

State	Cases of communicable disease reported to the State department of health		Quarantine measures enforced by—	Small-pox vaccination compulsory	Emergency fund available
	By whom	When			
Alabama.....	Physicians and county health officers.	Weekly...	Local health officers.....	No ¹ ...	Yes.
Arizona.....	Physicians and county health superintendents.	(²)	do.....	No....	No.
Arkansas.....	Local health officers.	Weekly...	do.....	Yes....	Yes. ³
California.....	City and county health officers.	do.....	State and local boards of health.	No....	Yes.
Colorado.....	Local health officers.	do.....	Local boards of health.....	No ¹ ...	Yes.
Connecticut.....	do.....	Daily...	Local health officers.....	No ¹ ...	Yes.
Delaware.....	Physicians and heads of families.	At once...	County health officers.....	No....	Yes.
Florida.....	Physicians and city health officers.	(⁴)	City or district health officers.	No....	No.
Georgia.....	Physicians and county health officers.	Weekly...	City and county health officers.	No....	No.
Idaho.....	do.....	Daily...	do.....	No....	No.
Illinois.....	Local health officers.	(⁵)	Local health officers.....	No....	Yes.
Indiana.....	City, town, and county health officers.	Weekly...	do.....	No....	Yes.
Iowa.....	Local health officers.	Daily...	Local boards of health.....	No....	No.
Kansas.....	do.....	Weekly...	Local health officers.....	No ¹ ...	No.
Kentucky.....	Physicians through county health officers.	do.....	County health officers.....	Yes....	Yes.
Louisiana.....	Physicians.	Daily...	State health department.	No ¹ ...	Yes.
Maine.....	Local health officers.	Weekly...	Local health officers.....	No....	No.
Maryland.....	do.....	Daily...	do.....	Yes....	Yes.
Massachusetts.....	Local boards of health.	do.....	Local boards of health.....	Yes....	Yes.
Michigan.....	Local health officers.	do.....	Local health officers.....	No....	Yes.
Minnesota.....	Physicians and local health officers.	do.....	do.....	No....	Yes.
Mississippi.....	County health officers.	(⁶)	County health officers.....	No ¹ ...	No.
Missouri.....	City and county health officers.	Weekly...	Local health officers.....	No ¹ ...	No.
Montana.....	Local health officers.	do.....	do.....	No....	No.
Nebraska.....	do.....	do.....	Local boards of health.....	No ¹ ...	No.
Nevada.....	County health officers.	Monthly...	County health officers.....	No....	Yes.
New Hampshire.....	Local health officers.	Weekly...	Local health officers.....	Yes....	No.
New Jersey.....	do.....	Daily...	Local boards of health.....	No ¹ ...	Yes.
New Mexico.....	do.....	do.....	Local health officers.....	Yes....	Yes.
New York.....	do.....	do.....	do.....	Yes ⁷ ...	Yes.
North Carolina.....	County quarantine officers.	do.....	County quarantine officers.....	No ¹ ...	Yes.
North Dakota.....	City and county health officers.	Weekly...	Local health officers.....	No....	Yes.
Ohio.....	Local health commissioners.	do.....	Local health commissioners.	No....	Yes.
Oklahoma.....	County health officers.	do.....	County health officers.....	No....	Yes.
Oregon.....	Physicians and health officers.	do.....	Local health officers.....	No....	Yes.
Pennsylvania.....	Municipal and department health officers.	(⁸)	Secretary of health.....	Yes....	No.
Rhode Island.....	Local health officers.	Weekly...	Local authorities.....	Yes....	No.
South Carolina.....	Physicians and local health officers.	do.....	Physicians and health officers.	Yes....	No.
South Dakota.....	County health officers.	Daily...	Local health officers.....	No....	No.
Tennessee.....	County health officers and physicians.	Weekly...	do.....	No....	Yes.
Texas.....	Local health officers.	do.....	State health officer.....	No ¹ ...	Yes.
Utah.....	Local health officers and collaborating epidemiologists.	(⁹)	Local health officers.....	No....	No.
Vermont.....	Physicians and local health officers.	Weekly...	Local boards of health.....	No....	Yes.
Virginia.....	do.....	(¹⁰)	Local health officers.....	Yes....	No.
Washington.....	City and county health officers.	Weekly...	City and county health officers.	No ¹¹ ...	Yes.
West Virginia.....	Local health officers.	do.....	Local boards of health.....	No ¹ ...	No.
Wisconsin.....	do.....	do.....	do.....	No ¹¹ ...	Yes.
Wyoming.....	County health officers.	do.....	County health officers.....	No....	No.

¹ May be required by the local health officers or school board.² Physicians report weekly; county health superintendents monthly.³ Governor may issue a deficiency proclamation.⁴ Physicians report daily; local health officers weekly.⁵ Within 12 hours.⁶ County health officers required to submit weekly and monthly reports.⁷ In cities of more than 50,000 population.⁸ Municipal health officers report weekly; department health officers daily.⁹ Local health officers report monthly; collaborating epidemiologists report weekly.¹⁰ Health officers of the organized counties report weekly; those of unorganized counties monthly.¹¹ Except where smallpox exists.

The reporting of notifiable diseases is required in 13 States daily, in 26 States weekly, and in 1 State (Nevada) monthly. Delaware requires physicians to report at once, and Illinois requires local health officers to report to the State department of health within 12 hours. Arizona requires physicians to report weekly and county superintendents to report monthly. Florida requires a daily report from physicians, except where they report directly to the local health officers, who in turn make weekly reports to the State department of health. The county health officers in Mississippi are required to make a monthly summary report as well as to report weekly. The municipal health officers in Pennsylvania report weekly, and the department health officers make daily reports. In Utah the local health officers report monthly, while the collaborating epidemiologists report weekly. Virginia requires weekly reports from full-time county health officers and monthly reports from part-time county health officers.

MORBIDITY REPORTING AREA

At the 1929 annual conference of State and Territorial health officers, the creation of a morbidity reporting area was proposed. Each State has adequate legal authority to require the reporting of notifiable diseases, but at present the records are incomplete and unsatisfactory. Although most State departments of health list 40 or more diseases, some of which are regional, such as hookworm and malaria, 6 diseases, important from a public-health standpoint, were selected as a basis for admission to the area. These diseases are diphtheria, infantile paralysis, smallpox, scarlet fever, typhoid fever, and tuberculosis. Seventy-five per cent of the clinically recognized cases have been tentatively chosen as a minimum for admission. The advisability of establishing such an area is still under discussion.

QUARANTINE MEASURES

The enforcement of quarantine is the responsibility of the local health authorities in 42 States. Enforcement in three States—Louisiana, Pennsylvania, and Texas—is delegated to the State health executive. In California quarantine measures are a responsibility of the State and local boards of health; in North Carolina the county quarantine officer, usually the county health officer, serving under the general supervision of the State department of health is responsible; and in South Carolina the physicians and local health officers are responsible.

SMALLPOX VACCINATION

The reports received relative to smallpox vaccination laws or regulations indicate that procedures are not uniform. Eleven States have compulsory laws, 12 others state that authority is vested locally,

and 2 make vaccination compulsory in a community where smallpox exists. The gist of the answers from the 25 States in which either State or local authorities make vaccination compulsory is as follows:

Arkansas, Kentucky, and Rhode Island report that smallpox vaccination is compulsory for school children.

Maryland: No teacher in any public school shall receive a pupil not successfully vaccinated.

Massachusetts: Vaccination is compulsory and is enforced by the local boards of health or local school committee.

New Hampshire: The selectmen of a town, whenever in their opinion the health of the inhabitants of the town shall require it, may appoint an agent who may vaccinate at the expense of the town all persons who have not had smallpox.

New Mexico: Each teacher shall see that the children have been successfully vaccinated and present a proper certificate.

New York: Vaccination of school children enforced in cities of more than 50,000 population by board, officers, or other persons having charge, management, or control of the school.

Pennsylvania: Duty of all school directors, superintendents, etc., to refuse admission of any child except upon a certificate signed by a physician setting forth that such child has been successfully vaccinated.

South Carolina: The State board of health has the power to vaccinate or quarantine all such persons as it may consider necessary for the preservation of public health.

Virginia: Vaccination is compulsory unless set aside by school boards.

Washington and West Virginia: Vaccination compulsory if smallpox exists.

Alabama, Colorado, Connecticut, Kansas, Missouri, Nebraska, New Jersey, North Carolina, Texas, and West Virginia: By county or municipal ordinance only.

Louisiana: Regulations stipulate that whenever vaccination of school children is recommended by the local board of health it is the duty of the superintendent of schools to refuse admission to pupils not having a certificate of vaccination.

Mississippi: Smallpox vaccination is compulsory for school children where school boards have ordinances to that effect. In addition, county boards of supervisors may pass ordinances requiring all people living within a county to be vaccinated against smallpox.

EMERGENCY FUND

Twenty-eight States have made provision for having special funds available to meet emergencies. Table 19 classifies these States with reference to the availability of funds for emergencies in general or specifically for public health, and for each State listed shows at whose discretion the money can be spent. It will be noted that in the 12 States listed in the first column, the emergency fund is for general purposes and can be used at the discretion of the governor. In the second column are listed six States which likewise have general emergency funds which would include public health emergencies, but the funds can be spent only at the discretion of the State board designated for each State. In the third column are listed six States in which the emergency fund is specifically for health protection and is available for use at the discretion of the governor. In the fourth

column are listed four States which also have an emergency fund specifically for health protection, but discretion as to its use has been delegated to the State board of health. The fifth column lists 20 States which reported no general or special fund that can be used in an emergency to combat disease.

SPECIAL ACTIVITIES

With the advent of antityphoid vaccine and diphtheria toxin-antitoxin, many bureaus of communicable disease have undertaken to immunize whole communities against these diseases. These immunizations are carried out by local or district health officers working under the supervision of the State departments of health or by the personnel of the State bureau of communicable disease. Typhoid vaccination campaigns have been particularly extensive in the Southern States—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. Immunization against diphtheria has developed as a community measure during the past few years and Iowa, New York, and Virginia have made a strong drive against this disease. The progress that has been made throughout the country by State and local health organizations has been extraordinary. Connecticut, Georgia, and Minnesota have a separate appropriation for the purchase of antitoxins, vaccines, and sera for free distribution throughout the State. Under the bureau of finance, Pennsylvania has a division for supplies and biological products with a personnel of 21 members.

TABLE 19.—*Emergency fund*

General emergency funds used at the discretion of the governor for epidemics	State emergency fund used at discretion of a State board for epidemics	State board of health emergency fund used at the discretion of the governor	State board of health emergency fund	No emergency fund
Alabama. California. ¹ Colorado. Illinois. Indiana. Massachusetts. New Jersey. North Dakota. Oklahoma. Tennessee. Vermont. Washington.	Connecticut: State board of finance and control. Michigan: State administrative board. Minnesota: Executive council. North Carolina: State budget commission. Ohio: State emergency board. Oregon: State emergency board.	Arkansas. ² Delaware. Kentucky. Maryland. New Mexico. Wisconsin. ³	Louisiana. Nevada. New York. Texas.	Arizona. Florida. Georgia. Idaho. Iowa. Kansas. Maine. Mississippi. Missouri. Montana. Nebraska. New Hampshire. Pennsylvania. Rhode Island. South Carolina. South Dakota. Utah. Virginia. West Virginia. Wyoming.

¹ Governor and board of control.

² Governor may issue a deficiency proclamation.

³ Governor and attorney general.

In States where malaria is an important problem, there has been special activity in the control of this disease. In California, Georgia, Louisiana, Mississippi, and Oklahoma a separate bureau or division for malaria-control activities has been organized. (See Table 20.)

TABLE 20.—*Malaria control, 1930*

State	Bureau or division in charge	Total ap- propriation	Person- nel	Salary of director
California.....	Division of preventable diseases—prevention of malaria.	\$11,413	1	\$4,000
Georgia.....	Division of sanitary engineering—malaria control....	11,000	2	4,000
Louisiana.....	Bureau of malaria control.....	(¹)	1	3,600
Mississippi.....	do.....	22,250	4	4,800
Oklahoma.....	do.....	10,000	2	(²)

¹ No specific allotment by bureaus.² Director of the bureau of epidemiology is in charge.

In Alabama, Arkansas, Illinois, South Carolina, and Texas the State sanitary engineers are active in antimosquito measures. In Tennessee malaria-control activities are a function of the division of preventable diseases and in Virginia the State epidemiologist participates actively in measures against malaria. Malaria-control work is carried on by the full-time county and municipal health officers wherever the disease is really important.

In addition to the two States listed in Table 21, Missouri and Tennessee also carried on activities for the prevention of trachoma and blindness.

TABLE 21.—*Prevention of trachoma and blindness, 1930*

State	Bureau in charge	Total ap- propriation	Person- nel	Salary of director
Kentucky.....	Bureau of trachoma.....	¹ \$15,000	¹ 15	\$3,600
Ohio.....	Bureau for the prevention of blindness.....	(²)	1	3,200

¹ \$7,500 of the appropriation is for the trachoma hospital and 12 of the personnel are employed there.² Under the bureau of communicable diseases.

VENEREAL-DISEASE CONTROL

There has been notable activity during the past 15 years in measures for the prevention of venereal diseases. In 1915 these diseases were notifiable in nine States (California, Indiana, Iowa, Kansas, Louisiana, Michigan, Utah, Vermont, and Wisconsin) and perhaps in a few other States, but very few cases were reported. Thirteen States in that year (Alabama, California, Connecticut, Idaho, Illinois, Massachusetts, Nevada, New York, Rhode Island, South Carolina, South Dakota, Texas, and Wisconsin) reported free Wassermann examinations, and Vermont reported 408 examinations at \$2 each.⁶

The State rules and regulations with regard to control of venereal diseases were very fragmentary. During the World War nation-wide interest was aroused in the prevention of this group of diseases. The State boards of health were encouraged to develop special bureaus of venereal-disease control by the grants from the Federal Government.

ORGANIZATION

Table 22 indicates for each State in 1925 and 1930 the name of the branch of the State department of health having responsibility for

⁶ Taken from Doctor Chapin's Report on State Public Health Work, published by the American Medical Association, 1915.

venereal-disease control, the total appropriation, the number of persons engaged in the work, and the salary of the director.

TABLE 22.—*Venereal-disease control, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alabama.....	Division of venereal-disease control.....	\$21,380	(1)	12	(1)	\$3,600	(1)
Arizona.....	Central administration.....						
Arkansas.....	No activities.....	12,500		4		(2)	
California.....	Division of administration.....	3,180		2		(3)	
Colorado.....	Division of social hygiene.....	20,000	\$20,000	5	6	4,000	\$4,000
Connecticut.....	Division of venereal diseases.....	10,327	17,067	3	3	2,000	4,248
Delaware.....	Bureau of venereal-disease control.....	2,000	3,000	2	2	(2)	(2)
Florida.....	No activities.....						
Georgia.....	Division of venereal disease.....	10,000	10,000	5	6	2,500	\$2,400
Idaho.....	Bureau of venereal-disease control.....	3,100	3,000	3	1	(6)	2,280
Illinois.....	Division of social hygiene.....	87,285	79,865	15	23	5,000	5,000
Indiana.....	Division of communicable diseases.....	30,693		18		(7)	
Iowa.....	Central administration.....						
Kansas.....	Division of venereal diseases.....	839	1,050	(7)	(2)	(7)	(2)
Kentucky.....	Bureau of venereal diseases.....	15,000	25,000	14	23	3,000	3,600
Louisiana.....	Bureau of administration.....						
Maine.....	Division of social hygiene.....	14,193	14,170	9	11	3,500	3,500
Maryland.....	Bureau of communicable diseases.....	25,175		25		\$1,500	
Massachusetts.....	Division of communicable diseases.....	31,900	44,700	7	5	(7)	3,780
Michigan.....	No activities.....						
Minnesota.....	Bureau of preventable diseases—venereal-disease control.....	33,063	\$19,773	17	11	2,500	3,000
Mississippi.....	Bureau of communicable diseases.....	10,000		3		3,600	
Missouri.....	Division for control of contagion.....						
Montana.....	Central administration.....						
Nebraska.....	Division of venereal diseases and epidemiology.....	(10)	(10)	(10)	(10)	(10)	(10)
Nevada.....	State hygienic laboratory.....						
New Hampshire.....	Division of epidemiology and venereal-disease control.....	(1)	(1)	(1)	(1)	(1)	(1)
New Jersey.....	Bureau of venereal-disease control.....	25,746	28,935	7	8	3,900	3,300
New Mexico.....	Division of preventable diseases.....						
New York.....	Division of social hygiene.....	38,006	57,437	15	16	5,000	5,500
North Carolina.....	Bureau of epidemiology.....	4,643		(1)		(7)	
North Dakota.....	Bureau of preventable diseases.....	4,200		2		3,000	
Ohio.....	Bureau for the control of venereal disease.....	22,408	14,000	4	2	3,000	3,200
Oklahoma.....	Bureau of venereal disease.....	20,000	10,800	3	4	3,000	3,000
Oregon.....	Division of social hygiene.....	3,750	3,800	5	5	(2)	(2)
Pennsylvania.....	Bureau of communicable diseases—venereal-disease control.....	42,987	30,635	80	32	4,260	4,380
Rhode Island.....	Division of venereal-disease control.....	10,000	8,460	2	2	3,000	3,000
South Carolina.....	No activities.....						
South Dakota.....	do.....						
Tennessee.....	Division of preventable diseases—venereal-disease control.....	2,773		(1)		(7)	(11)
Texas.....	No activities.....	7,167		(1)		(7)	
Utah.....	Bureau of communicable diseases.....						
Vermont.....	Division of communicable diseases.....						
Virginia.....	Bureau of social hygiene.....	4,100	2,500	2	2	2,250	(12)
Washington.....	Division of communicable diseases.....	642		(1)		(7)	
West Virginia.....	Bureau of venereal diseases.....	21,346	11,000	4	2	4,000	3,300
Wisconsin.....	Bureau of venereal-disease control.....	36,370	36,370	22	21	(7)	(7)
Wyoming.....	No activities.....						

¹ See communicable-disease control, Table 15, p. 56.

² Executive officer is the director.

³ Personnel included under the bureau of administration except 2 stenographers.

⁴ Officials included whose time is devoted to more than 1 activity.

⁵ Also director of the division of child hygiene. Total salary is \$6,000.

⁶ Public health adviser is the director.

⁷ Director of communicable-disease control.

⁸ Remainder of salary as director of the bureau of communicable diseases.

⁹ Laboratory included.

¹⁰ Not listed.

¹¹ Paid by the U. S. Public Health Service.

¹² Assistant health commissioner is the director.

In 1930, 21 States made a separate appropriation for venereal-disease control. The work was carried on by the division or bureau for communicable diseases in 12 other States, whereas in Arizona, California, Iowa, Louisiana, and Montana it was carried on by the

central administrative staff. In Nevada the director of the State laboratory, as a university activity, supervised this work. In Nebraska and New Hampshire it was carried on by the combined division of epidemiology and venereal-disease control. In seven States no activities were carried on.

In comparing the amount appropriated for venereal-disease control in 1925 with the amount set aside in 1930, it will be noticed that 11 States have either discontinued the venereal-disease appropriation or now include it under the amount for communicable-disease control. Ten States have decreased the amount of the budget during the 5-year period while eight States have increased the venereal-disease control budget. Five of these eight States made a material increase in the amount, namely: New York, \$19,431; Massachusetts, \$12,800; Kentucky, \$10,000; Connecticut, \$6,740; and New Jersey, \$3,189.

The percentage of the total State health appropriation expended for venereal-disease control in each of the 20 States has determined the order in which the States are listed in Table 23. Colorado in this classification heads the list, spending \$20,000, or 30.5 per cent of its total appropriation, whereas Illinois spent \$79,865 or 12.4 per cent and New York spent \$57,437 or 2.5 per cent. In the grouping of the States it will be noted that four of the 20 States listed spend for venereal-disease control more than 10 per cent of the State appropriation for health work. The 27 States which have no separate budget for this branch of service are listed in footnote 1, Table 23.

VENEREAL-DISEASE CLINICS

Table 24 gives the number of clinics conducted, supervised, or subsidized by the various State departments of health during 1929, as well as the number of treatments administered and indicates whether or not these treatments are furnished free to indigent patients.

TABLE 23.—States arranged according to the percentage of total State legislative appropriation for health work allotted to venereal-disease control, 1930 ¹

State	State legislative appropriation	State legislative appropriation for venereal disease control	Percentage	State	State legislative appropriation	State legislative appropriation for venereal disease control	Percentage
Colorado.....	\$65,550	\$20,000	30.5	Georgia.....	\$165,000	\$10,000	6.1
Kentucky.....	145,400	20,000	13.8	Oklahoma.....	196,950	10,800	5.5
Illinois.....	642,261	79,865	12.4	Massachusetts.....	829,995	44,700	5.4
Wisconsin.....	352,313	36,370	10.3	Connecticut.....	324,309	17,067	5.3
Maine.....	145,500	14,170	9.7	Delaware.....	84,000	3,000	3.6
Idaho.....	37,750	3,000	7.9	New York.....	2,273,693	57,437	2.5
West Virginia.....	140,800	11,000	7.8	Ohio.....	652,823	14,000	2.1
Oregon.....	50,512	3,800	7.5	Pennsylvania.....	1,577,120	30,635	1.9
Minnesota.....	275,300	19,773	7.2	Kansas.....	108,456	1,050	1.0
New Jersey.....	416,978	28,935	6.9	Virginia.....	352,645	2,500	0.7
Rhode Island.....	129,498	8,460	6.5				

¹ Conducted by central administrative staff: Arizona, California, Iowa, Louisiana, Montana. Conducted under communicable disease control: Alabama, Indiana, Maryland, Mississippi, Missouri, New Mexico, North Carolina, North Dakota, Tennessee, Utah, Vermont, Washington. Conducted by State laboratory: Nevada. Division combined with epidemiology: Nebraska, New Hampshire. No activities: Arkansas, Florida, Michigan, South Carolina, South Dakota, Texas, and Wyoming.

TABLE 24.—*Venereal disease clinics, 1929*

State	Number of clinics conducted, supervised, or subsidized by the State health department	Treatments administered		Treatments furnished free to indigents
		Salvarsan	Others	
Alabama.....	¹ 186	54,357	98,561	Yes.
Arizona.....	None.	None.	None.	None.
Arkansas.....	None.	None.	None.	None.
California.....	² 16	None.	None.	Yes.
Colorado.....	³ 4	2,995	14,267	Yes.
Connecticut.....	⁴ 8	11,218	None.	Yes.
Delaware.....	3	3,291	907	Yes.
Florida.....	None. ⁴	None.	None.	None.
Georgia.....	None.	None.	None.	None.
Idaho.....	None.	None.	None.	Yes.
Illinois.....	⁵ 12	45,221	212,321	Yes.
Indiana.....	17	31,443	129,738	Yes.
Iowa.....	None. ⁴	None.	None.	Yes.
Kansas.....	5	6,949	27,278	Yes.
Kentucky.....	35	18,008	39,935	Yes.
Louisiana.....	None.	None.	None.	None.
Maine.....	8	3,431	4,683	Yes.
Maryland.....	16	21,974	67,224	Yes.
Massachusetts.....	⁶ 14	54,961	158,693	Yes.
Michigan.....	None.	None.	None.	None.
Minnesota.....	None. ⁴	969	708	Yes.
Mississippi.....	1	3,177	1,715	Yes.
Missouri.....	19	19,830	62,050	Yes.
Montana.....	None.	None.	None.	None.
Nebraska.....	4	6,020	None.	Yes.
Nevada.....	None.	None.	None.	None.
New Hampshire.....	4	2,100	4,486	Yes.
New Jersey.....	⁷ 28	21,906	49,356	Yes.
New Mexico.....	None.	None.	None.	None.
New York.....	55	44,644	114,864	Yes.
North Carolina.....	None. ⁴	None.	None.	Yes.
North Dakota.....	1	282	368	Yes.
Ohio.....	39	49,701	206,132	(⁸)
Oklahoma.....	1	38,200	4,000	Yes.
Oregon.....	1	1,669	2,590	Yes.
Pennsylvania.....	53	157,234	6,000	Yes.
Rhode Island.....	6	10,000	6,000	Yes.
South Carolina.....	None.	None.	None.	None.
South Dakota.....	None.	None.	None.	None.
Tennessee.....	None. ⁴	None.	None.	Yes.
Texas.....	None.	None.	None.	None.
Utah.....	None.	None.	None.	None.
Vermont.....	None. ⁴	3,601	1,404	Yes.
Virginia.....	None.	None.	None.	None.
Washington.....	3	6,682	18,172	Yes. ⁹
West Virginia.....	15	13,010	17,730	Yes.
Wisconsin.....	7	17,432	None.	Yes.
Wyoming.....	None.	None.	None.	None.

¹ 14 free and 172 cooperative clinics.² Conducted by local authorities under health department regulations.³ Cooperative clinics. The State department of health furnishes arsenicals only.⁴ Conducted by local authorities.⁵ 27 clinics, 12 of which were subsidized.⁶ 14 subsidized, 13 nonsubsidized, and 26 clinics connected with hospitals and institutions.⁷ Cooperative clinics partly subsidized by the State department of health.⁸ Clinics may charge for treatments but not for salvarsan. Salvarsan is furnished free to clinics and to physicians for indigent persons where no clinics are established.⁹ Patients who can pay are charged \$1.15 per treatment.

It will be noted that in 27 States clinics are conducted, supervised, or subsidized by the State department of health. In 6 States (Florida, Iowa, Minnesota, North Carolina, Tennessee, and Virginia) clinics are conducted by the local authorities only, and in 15 States no clinics are held.

In Table 24 it will be noted that treatments are furnished free for indigents in 33 States. In Connecticut and Massachusetts only

arsenicals are distributed free. Reference to Table 42, page 98, will show that 1,117,111 Wassermann tests (both blood and spinal fluid) were made by 41 States during 1929, and that these tests have come to be the chief diagnostic activity of the public-health laboratories.

TUBERCULOSIS CONTROL

The combating of tuberculosis by the National Tuberculosis Association began in 1904. This was before several of the State departments of health had advanced far beyond merely a legal organization status. Tuberculosis associations, State and local, were established in practically every State. Through the sale of seals and from other sources, the funds raised for combating tuberculosis were greater in amounts than those provided in certain States for all other health purposes. The work consisted of health education, case finding, follow-up work, conducting of clinics and dispensaries, and the erection and maintenance of sanatoria. The transfer of responsibility for maintenance and expansion of the work from private agencies to governmental agencies has progressed but not to completion. Moreover the method of transfer has not been uniform.

TABLE 25.—*Prevention and control of tuberculosis, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation for tuberculosis ¹		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alabama.....	Division of tuberculosis control.....	\$4,502	(?)	1	(?)	\$3,000	(?)
Arizona.....	Central administration.....						
Arkansas.....	No activities.....						
California.....	Division of public health education—bureau of tuberculosis.	22,500	\$23,950	6	8	3,000	\$4,000
Colorado.....	No activities.....						
Connecticut.....	do.....						
Delaware.....	Bureau of tuberculosis.....	20,000	20,000	2	* 1	3,600	3,800
Florida.....	Bureau of communicable diseases.....						
Georgia.....	No activities.....						
Idaho.....	do.....						
Illinois.....	Division of tuberculosis.....	8,672	7,525	4 3	4 3	(?)	(?)
Indiana.....	Division of communicable diseases.....						
Iowa.....	Division of preventable diseases and epidemiology.....						
Kansas.....	Division of communicable diseases.....						
Kentucky.....	Bureau of tuberculosis.....	10,000	20,000	4	4	3,600	3,600
Louisiana.....	Bureau of tuberculosis control.....	(?)	(?)	(?)	(?)	(?)	(?)
Maine.....	Division of administration.....						
Maryland.....	Bureau of communicable diseases.....						
Massachusetts.....	Division of tuberculosis.....	7 115,450	7 129,360	32	35	5,350	4,200
Michigan.....	No activities.....						
Minnesota.....	Division of preventable diseases.....						
Mississippi.....	Bureau of tuberculosis control.....	* 175,000	* 235,000	* 27	* 95	5,000	5,000
Missouri.....	Division for control of contagion.....						
Montana.....	No activities.....						
Nebraska.....	do.....						
Nevada.....	do.....						
New Hampshire.....	Division of maternity, infancy, and child hygiene.....						
New Jersey.....	No activities ²	10,000		2		4,000	

¹ Sanatoria funds not included.

² Included under the bureau of preventable diseases. (See Table 15, p. 56.)

³ Also part of the staff of the bureau of child hygiene.

⁴ Officials included whose time is devoted to more than one activity.

⁵ The assistant director acts as chief of the division of tuberculosis; his salary is \$4,200.

⁶ Bureau created but no appropriation or personnel.

⁷ Amount for tuberculosis clinics only.

⁸ Sanatorium included.

⁹ Bureau of tuberculosis control discontinued in 1926.

TABLE 25.—*Prevention and control of tuberculosis, 1925 and 1930*—Continued

State	Bureau or division in charge in 1930	Total appropriation for tuberculosis		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
New Mexico.....	No activities.....						
New York.....	Division of tuberculosis.....	\$37,495	\$55,514	12	16	\$5,000	\$5,500
North Carolina.....	No activities.....						
North Dakota.....	do.....						
Ohio.....	Bureau of tuberculosis.....	10,540	7,000	4	1	3,000	3,600
Oklahoma.....	Bureau of epidemiology.....						
Oregon.....	Division of administration.....						
Pennsylvania.....	Bureau of communicable diseases— tuberculosis control.....	52,740	41,242	4 130	4 128	4,000	4,000
Rhode Island.....	No activities.....						
South Carolina.....	No activities except those carried on by the sanatorium.....						
South Dakota.....	No activities.....						
Tennessee.....	Division of preventable diseases— tuberculosis control.....		74,330		12		3,900
Texas.....	No activities.....						
Utah.....	Bureau of communicable diseases.....						
Vermont.....	Division of tuberculosis control.....	2,000	2,000	4 2	4 2	10 600	10 600
Virginia.....	Bureau of tuberculosis education and clinics.....	64,110	64,420	20	19	(11)	3,000
Washington.....	No activities.....						
West Virginia.....	Division of preventable diseases.....						
Wisconsin.....	Bureau of communicable diseases.....						
Wyoming.....	No activities.....						

⁴ Officials included whose time is devoted to more than one activity.

¹⁰ The director is secretary of the Vermont Tuberculosis Association also.

¹¹ Not given.

PREVENTION AND CONTROL

By 1930 the reports show that 29 State departments of health had assumed definite responsibilities in connection with the prevention and control of tuberculosis. Table 25 shows for each State the health department personnel for tuberculosis control, the annual budget, and the salary of the director for 1925 and 1930. There were 14 States in 1930 which had bureaus or divisions specifically for tuberculosis activities. Eleven of the States have bureaus or divisions of communicable disease in which activities relating to tuberculosis are conducted. Activities in New Hampshire are carried on by the division of maternity, infancy, and child hygiene. In three States (Arizona, Maine, and Oregon) the State health officer himself undertakes such work as is conducted. In 19 States the State departments of health reported no special activities in tuberculosis control. This should not imply that control measures are not undertaken by local health departments and voluntary tuberculosis associations.

REPORTING OF CASES

All State departments of health have regulations requiring the reporting of tuberculosis. In 42 States the reports are made to the local health authorities who transmit them to the State department of health. In Florida, Mississippi, New Hampshire, North Carolina, Rhode Island, and Vermont reports are transmitted directly to the State department of health.

TABLE 26.—*Tuberculosis clinics and dispensaries, 1929*¹

STATE CLINICS CONDUCTED BY THE STATE DEPARTMENT OF HEALTH

State	Number of stations	Number of clinics	Number of patients	State	Number of stations	Number of clinics	Number of patients
California.....			¹ 15,000	Oklahoma.....	2	15	60
Delaware.....	8	Weekly	1,310	Pennsylvania.....		92	54,999
Kentucky.....	19	25	785	South Carolina.....		¹ 52	(?)
Maryland.....	22	222	3,338	Tennessee.....	(⁹)	1,119	11,386
Massachusetts.....		(¹¹)	3,368	Utah.....	⁶ 1	100	(?)
New York.....		162	5,437	Virginia.....	85	603	8,446
Ohio.....		¹ 9					

STATE CLINICS CONDUCTED BY OTHER BOARDS OR COMMISSIONS

Connecticut.....	18	334	1,522	North Carolina.....	31	31	17,604
Michigan.....	(⁹)	(⁹)	(⁹)	Oklahoma.....	1	Daily.	(?)
Minnesota.....	18	1,150	14,802	Rhode Island.....	(⁹)	(⁹)	(⁹)
New Hampshire.....	(⁹)	(⁹)	(⁹)	Wyoming.....	(⁹)	(⁹)	(⁹)
New Jersey.....	57	513	7,034				

CLINICS CONDUCTED BY LOCAL HEALTH ORGANIZATIONS

Arizona.....	4	4	31,500	Missouri.....	13	13	1,061
Colorado.....	8	471	2,530	New Jersey.....	49	4,193	(?)
Connecticut.....	2	452	3,880	New York.....	63	2,800	25,340
Indiana.....	49	49	3,289	North Carolina.....	4	Daily.	(?)
Kansas.....	1	50	384	Ohio.....		22	(?)
Kentucky.....	3	1,205	4,376	South Carolina.....		(⁹)	(?)
Louisiana.....	2	2	¹⁰ 299,257	Virginia.....		664	9,321
Maine.....		1	(?)	West Virginia.....	7	(?)	(?)
Massachusetts.....		54	¹¹ 22,000	Wisconsin.....		4	(?)
Mississippi.....		(¹²)	(?)				

¹ No clinics: Alabama, Arkansas, Florida, Georgia, Idaho, Illinois, Iowa, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Texas, Vermont, Washington.

² X-ray motor clinic.

³ 4 clinics are conducted each month in various counties by a clinician from the sanatorium.

⁴ Itinerant clinics are held in any locality.

⁵ 8 consultation and 4 out-patient clinics.

⁶ 1 permanent and several mobile clinic.

⁷ Clinics are held in cities and counties on request of local health commissioner and medical association.

⁸ State tuberculosis association.

⁹ 5 full-time counties maintained clinics.

¹⁰ Visits.

¹¹ Estimated.

¹² Surveys were conducted in six counties.

DISPENSARIES AND CLINICS

Administrative methods in the States with regard to clinics and dispensaries, like the educational and sanatoria activities, are far from uniform. Table 26 enumerates in the first block 13 States the health departments of which operate clinics. The number of stations, clinics, and patients for each State are given. The table gives similar data in the second block for 9 States in which the work is not conducted by the State department of health. It also lists in the third block 19 States in which such stations or clinics are operated by local health organizations. In footnote 1 are enumerated 17 States which do not conduct State tuberculosis clinics.

Tables 27, 28, and 29 relate to tuberculosis sanatoria. Table 27 shows 9 State departments of health which operate a total of 18 sana-

toria. The number of such sanatoria and the total number of beds for each State are given. Similar data regarding sanatoria for tuberculosis maintained by State appropriations to boards or commissions other than the State department of health in 27 States are presented in the second block of the table, and in footnote 1, 12 States are listed in which no State tuberculosis sanatoria are maintained.

In Table 28 the appropriations through State departments of health for the maintenance of 5,423 beds in 18 sanatoria in 9 States are given. All appropriations for State sanatoria not made to the health departments were not reported. However, those for 21 States were reported and are given in the second column of appropriations.

Table 29 gives information concerning county and municipal sanatoria, as well as private and semiprivate institutions for tuberculous patients. Under the heading of county sanatoria there is a total of 26 States which reported 19,383 beds distributed in 195 sanatoria. Under the heading of municipal sanatoria 14 States reported 6,911 beds in 35 sanatoria. Under the heading of private and semiprivate sanatoria 26 States reported approximately 23,367 beds in 210 sanatoria.

TABLE 27.—*State tuberculosis sanatoria, 1929*¹

STATE SANATORIA MAINTAINED BY AN APPROPRIATION INCLUDED IN THE BUDGET OF THE STATE DEPARTMENT OF HEALTH

State	Num- ber	Beds	State	Num- ber	Beds
Delaware.....	2	85	Oklahoma.....	2	400
Georgia.....	1	275	Pennsylvania.....	3	2,000
Kentucky.....	1	70	South Carolina.....	1	278
Massachusetts.....	4	1,050	Virginia.....	3	785
Mississippi.....	1	480			

STATE SANATORIA MAINTAINED BY AN APPROPRIATION MADE TO BOARDS OR COMMISSIONS OTHER THAN THE STATE DEPARTMENT OF HEALTH

Arkansas: Honorary board.....	1	325	New York: Board of trustees.....	1	300
Connecticut: Tuberculosis commis- sion.....	5	866	North Carolina: Board of directors.....	1	470
Indiana: Board of trustees.....	1	210	North Dakota: Board of administra- tion.....	1	240
Iowa: Board of control.....	1	315	Ohio: Department of public welfare.....	1	236
Kansas: Board of administration.....	1	196	Oregon: Board of control.....	2	300
Louisiana: Tuberculosis commission.....	1	65	Rhode Island: Separate commission.....	1	(?)
Maine: Tuberculosis commission.....	3	400	South Dakota: Board of charities and corrections.....	1	240
Maryland: Separate boards.....	7	1,005	Texas: Board of control.....	1	500
Michigan: Separate boards.....	1	228	Vermont: Department of public wel- fare.....	1	54
Minnesota: Department of public in- stitutions.....	1	315	West Virginia: Board of control.....	3	550
Missouri: Federal eleemosynary board.....	2	295	Wisconsin: Board of control.....	2	229
Montana: Board of examiners.....	1	180	Wyoming: Board of charities and reform.....	1	29
Nebraska: Board of control.....	1	120			
New Hampshire: Board of trustees.....	1	180			
New Jersey: Department of institu- tions.....	1	377			

¹ No State sanatoria: Alabama, Arizona, California, Colorado, Florida, Idaho, Illinois, Nevada, New Mexico, Tennessee, Utah, Washington.

TABLE 28.—Appropriations made for State tuberculosis sanatoria in 1930

State ¹	Appropriation included in State department of health budget	Appropriation made through some other board or commission	State ¹	Appropriation included in State department of health budget	Appropriation made through some other board or commission
Arkansas.....		\$285,000	New Hampshire.....		\$20,000
Connecticut.....		2,028,500	New Jersey.....		466,804
Delaware.....	\$104,000		New York.....		385,476
Georgia.....	280,000		North Carolina.....		247,050
Indiana.....		² 179,500	North Dakota.....		138,335
Iowa.....		38,000	Ohio.....		(⁴)
Kansas.....		246,500	Oklahoma.....	(⁴)	
Kentucky.....	³ 20,817		Oregon.....		(⁴)
Louisiana.....		50,000	Pennsylvania.....	\$930,698	
Maine.....		398,750	Rhode Island.....		305,460
Maryland.....		(⁴)	South Carolina.....	161,732	
Massachusetts.....	1,428,290		South Dakota.....		181,000
Michigan.....		(⁴)	Texas.....		(⁴)
Minnesota.....		76,000	Vermont.....		100,000
Mississippi.....	235,000		Virginia.....	276,050	
Missouri.....		217,500	West Virginia.....		455,000
Montana.....		(⁴)	Wisconsin.....		203,850
Nebraska.....		81,000	Wyoming.....		37,550

¹ The 12 States not listed have no State tuberculosis sanatoria.² Plus \$700 for each patient above a daily average of 170 patients each month.³ The State appropriated \$10,000 to the State department of health for free beds. In addition the fiscal courts appropriate \$15 per week for indigent cases.⁴ Not given.

TABLE 29.—County, municipal, semiprivate, and private tuberculosis sanatoria, 1929

COUNTY SANATORIA

State	Number	Beds	State	Number	Beds
Alabama.....	4	224	Nebraska.....	1	28
Arizona.....	2	66	New Jersey.....	10	1,754
California.....	23	3,500	New York.....	29	2,737
Illinois.....	16	815	North Carolina.....	11	629
Indiana.....	7	981	Ohio.....	¹ 12	1,579
Iowa.....	4	300	Oregon.....	1	30
Kansas.....	1	30	Pennsylvania.....	3	237
Kentucky.....	2	550	South Carolina.....	5	197
Maryland.....	1	21	Utah.....	1	30
Massachusetts.....	8	1,095	Vermont.....	1	46
Michigan.....	11	1,117	Washington.....	5	452
Minnesota.....	14	1,408	West Virginia.....	4	118
Missouri.....	2	110	Wisconsin.....	17	1,329

MUNICIPAL SANATORIA

Illinois.....	2	1,181	New Jersey.....	1	90
Kansas.....	1	40	Ohio.....	1	398
Kentucky.....	1	400	Pennsylvania.....	3	490
Maryland.....	1	200	South Carolina.....	1	18
Massachusetts.....	11	1,162	Tennessee.....	4	900
Michigan.....	2	1,100	Virginia.....	3	187
Missouri.....	3	465	Washington.....	1	280

SEMIPRIVATE AND PRIVATE SANATORIA

Arizona.....	62	2,150	New Jersey.....	7	542
California.....	(?)	6,900	New Mexico.....	11	902
Colorado.....	21	4,621	New York.....	18	1,774
Connecticut.....	2	175	North Carolina.....	21	886
Illinois.....	15	2,053	Ohio.....	1	120
Louisiana.....	4	473	Oregon.....	1	80
Maine.....	2	40	Pennsylvania.....	13	1,180
Maryland.....	4	198	Rhode Island.....	1	(?)
Massachusetts.....	9	257	Tennessee.....	4	92
Michigan.....	2	265	Vermont.....	1	44
Minnesota.....	2	75	Virginia.....	1	75
Missouri.....	3	185	Washington.....	2	110
New Hampshire.....	1	90	Wisconsin.....	2	80

¹ 3 district and 9 county sanatoria.

The following five States report State subsidies toward the maintenance of local tuberculosis sanatoria: California, Massachusetts, Michigan, Minnesota, and Washington. The subsidies all go to county sanatoria except in Massachusetts, where they are applied to sanatoria of towns and cities. The State subsidies are disbursed in California and Massachusetts through the State departments of health and through other branches of the State governments in Michigan, Minnesota, and Washington.

TREATMENT OF CANCER

In 1926 Massachusetts inaugurated a program for the care and treatment of persons suffering with cancer. The plan consisted of the hospitalization, clinic administration, education, and investigation of cases, and a 90-bed hospital was opened for any resident afflicted with cancer. New York maintains a State institute for the study of malignant diseases and provides diagnostic service, X ray, radium, and surgery. Research in biological chemistry, clinical pathology, and physics as related to cancer therapy is also carried on. Table 30 gives the appropriation, personnel, and salaries of the directors for these two divisions for 1930.

TABLE 30.—*Treatment of cancer, 1930*

State	Division in charge	Total appropriation	Personnel	Salary of director
Massachusetts.....	Division of adult hygiene.....	\$76,700	20	\$4,600
New York.....	State institute for the study of malignant diseases..	215,415	87	10,000

7. VITAL STATISTICS

Beginning with the census of 1850, attempts were made at each Federal census up to and including that of 1900 to gather "mortality data relating to the census year in order to get a decennial cross section of mortality conditions." This method, however, was never satisfactory. The data were so incomplete that the records did not show more than 60 or 70 per cent of the actual number of deaths.

DEATH-REGISTRATION AREA

For the census year 1880 a registration area for deaths was begun. Massachusetts, New Jersey, the District of Columbia, and 19 cities served as a basis for Federal statistical compilations. From this date the registration area has grown steadily until at the close of 1929 it comprised 46 States, the District of Columbia, and 9 registration cities in nonregistration States. This area represents 95.7 per cent of the population of continental United States. States having good registration laws are admitted to the birth and death registration areas after careful tests show at least 90 per cent completeness of

registration. South Dakota was added to the registration area for deaths in 1930. Texas had not qualified for admission to the death-registration area at the close of 1930. (See fig. 17.)

BIRTH-REGISTRATION AREA

The registration area for births was first established in 1915 and at the close of 1929 included 46 States and the District of Columbia, or 94.8 per cent of the population. South Dakota and Texas were not included in the birth-registration area in 1929 either because the registration laws were inadequate or because the registration of births had not yet met the requirements of the United States Bureau of the Census for admission. (See fig. 18.)

GROWTH OF REGISTRATION AREAS

The census was taken in 1930. A special effort was made to have all States included in the registration areas by that time, so that it will be possible to compute national birth and death rates from that date. Many factors have contributed to the growth of the registration areas. Congress in 1902 enacted legislation which made possible the continuous collection by the Bureau of the Census of reliable data from States having adequate registration laws and satisfactory registration. Shortly after this a "model" registration law was evolved and States which up to that time had more or less defective laws have gradually fallen into line, having improved their laws to meet requirements of the Bureau of the Census and have been admitted to the area.

ORGANIZATION

Table 31 shows for each State the name of the bureau or division in charge of vital statistics, and compares for the years 1915, 1925, and 1930 the total appropriations, the number of persons employed, and the salary of the director. In Massachusetts the division of vital statistics is not a part of the State department of public health, but is under the direction of the secretary of State. In Nebraska, Nevada, New Hampshire, Rhode Island, Vermont, and Wyoming the division of vital statistics is a function of the central administrative office of the State department of health. In 15 States—Arizona, Colorado, Delaware, Idaho, Iowa, Maine, Nebraska, Nevada, New Hampshire, Oregon, Rhode Island, South Dakota, Utah, Vermont, and Wyoming—the executive health officer serves as the registrar of vital statistics. In 13 States—Arkansas, Connecticut, Florida, Maryland, Minnesota, Mississippi, Missouri, Montana, North Carolina, North Dakota, South Carolina, Tennessee, and Wisconsin—the executive officer is State registrar in name only and appoints an acting chief of the division of vital statistics. In Washington the sanitary engineer acts as the State registrar.

In comparing the amounts appropriated for vital statistics in 1925 with those in 1930, it will be noted that 26 States have increased

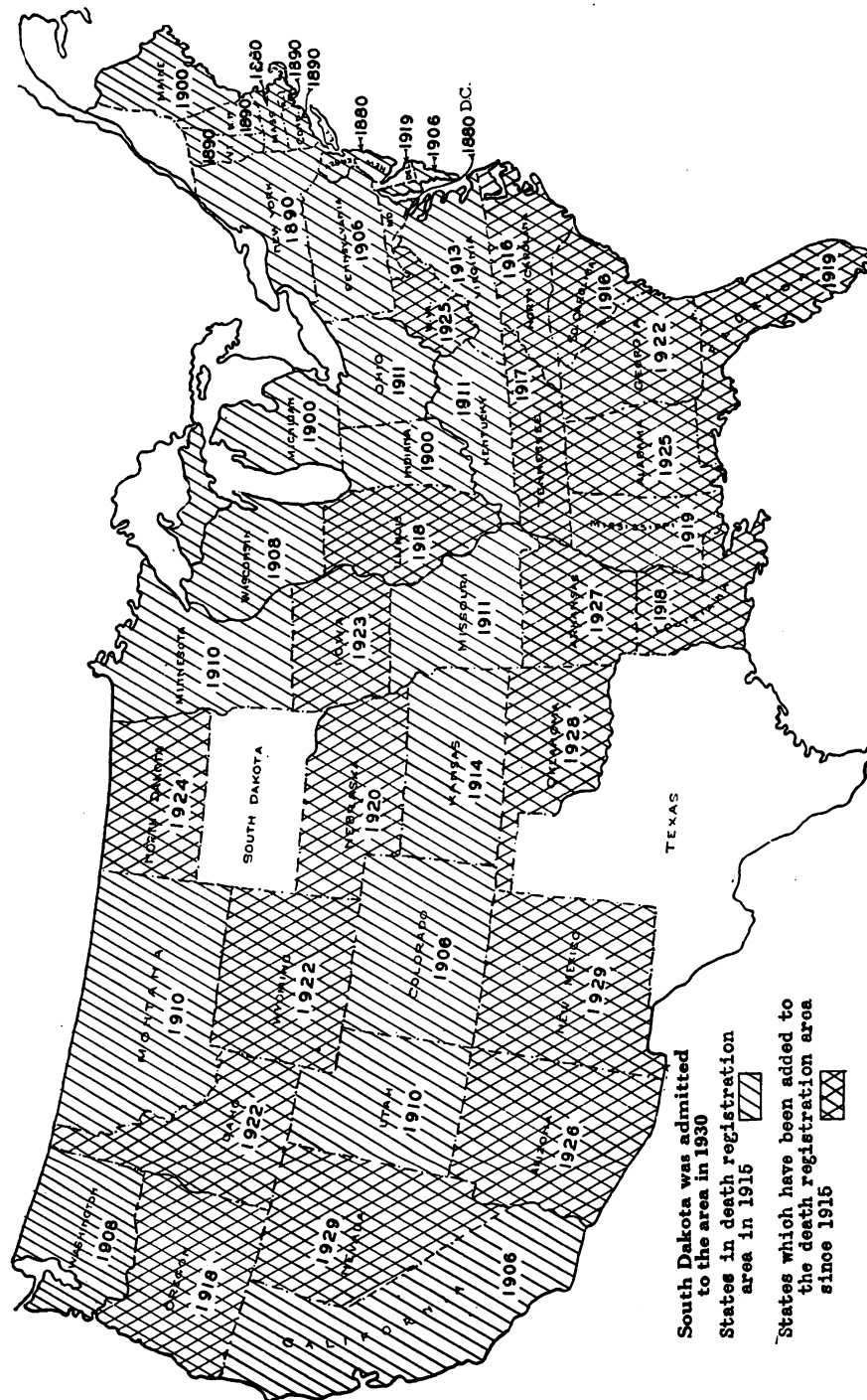


FIGURE 17.—Death registration area in 1915 and 1930. Figures indicate years in which States were added to area

their appropriation, among them New York, Pennsylvania, Alabama, and Florida.

In comparing the salaries of the State registrars in 1925 with those for 1930, it will be noted that 21 States have increased the salary:

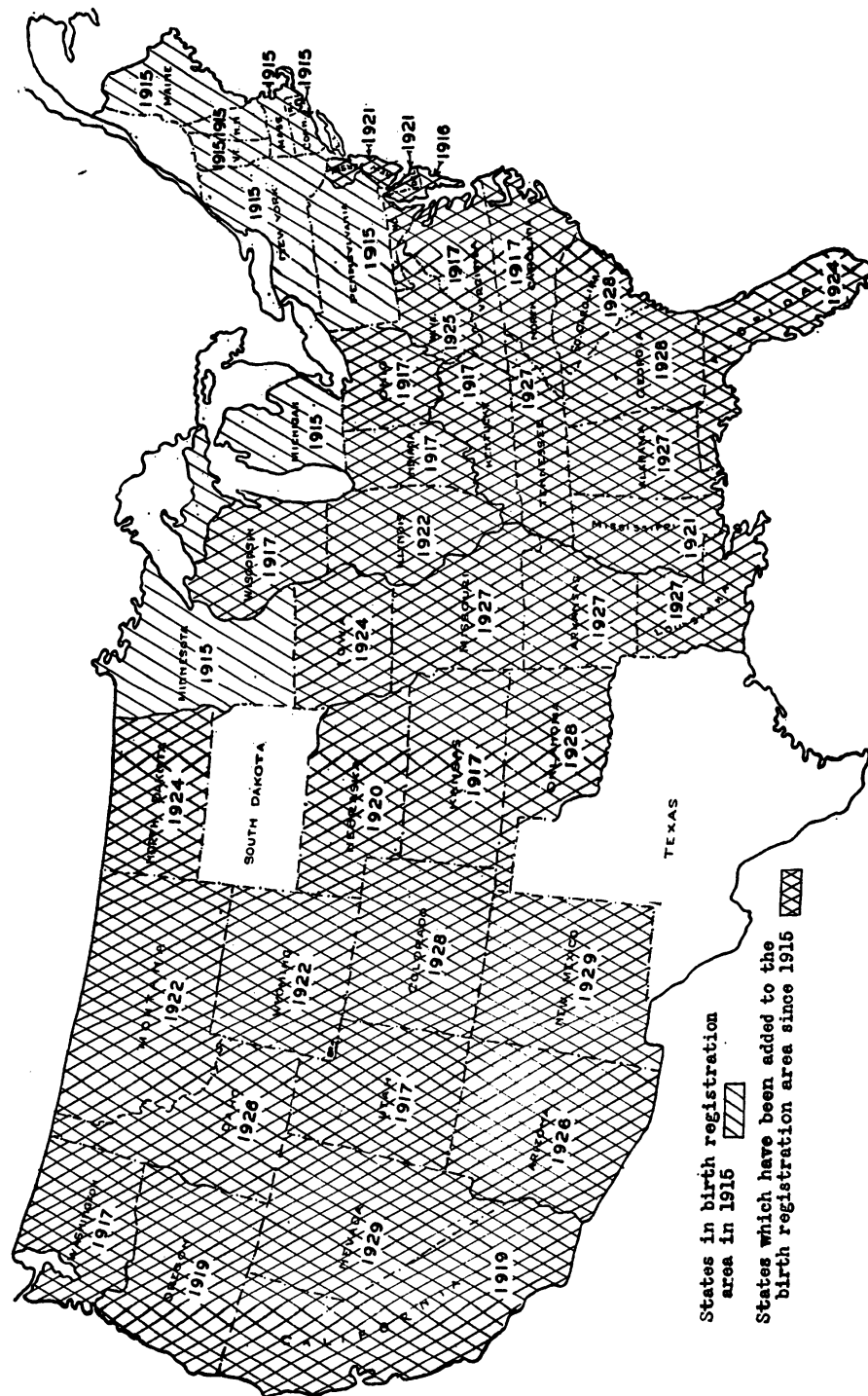


FIGURE 18.—Birth registration area in 1915 and 1930. Figures indicate years in which States were added to area.

of the registrar in amounts ranging from \$20 to \$1,717. The arithmetic average for the salary of the State registrar is \$3,538 as based on the 1930 amounts for 31 States.

The percentage of the total State health appropriation expended for vital statistics for each of 36 States in 1930 has determined the order in which the States are listed in Table 32. It will be noted that 23 of the 36 States spend between 5 and 10 per cent of the health appropriation for vital statistics. The per capita amount is recorded in the last column. The 12 remaining States are accounted for in the footnote.

REGISTRATION DISTRICTS

Table 33 lists the primary registration districts of each State and indicates the method by which the local registrars are chosen. It shows also whether they are paid a salary or fee, the amount per record, and by whom the fees are paid. The cities, towns, or voting precincts are primary registration districts in all the States except Delaware, where the primary registration district is the hundred, which is similar to the township in other States.

TABLE 31.—Vital statistics, 1915, 1925, and 1930

State	Bureau or division in charge in 1930	Appropriation for vital statistics			Personnel			Salary of registrar		
		1915	1925	1930	1915 ¹	1925	1930	1915 ¹	1925	1930
Alabama.....	Bureau of vital statistics.....	\$6,900	\$16,229	\$40,800	5	13	21	\$2,400	\$3,300	\$4,300
Arizona.....	Division of vital statistics.....	(²)	(²)	(²)	2	³ 4	³ 4	(⁴)	(⁴)	(⁴)
Arkansas.....	Bureau of vital statistics.....		29,400	33,900	1	6	9		2,100	2,100
California.....	Division of preventable diseases—vital statistics.....	17,550	20,610		5	9	11	2,400	2,400	3,000
Colorado.....	Division of vital statistics.....	1,200	1,500	4,700		2	3	(⁴)	(⁴)	(⁴)
Connecticut.....	Bureau of vital statistics.....		20,000	20,723	2	11	12		2,800	4,280
Delaware.....	do.....	1,992	2,000	2,000	² 2	2	2	(⁴)	(⁴)	(⁴)
Florida.....	do.....		33,673	57,000	1	8	15	1,200	3,500	3,600
Georgia.....	Division of vital statistics.....		16,366	28,000		7	12		4,000	5,000
Idaho.....	Bureau of vital statistics.....	(²)	2,745	2,820	1	³ 3	3	(⁴)	(⁴)	(⁴)
Illinois.....	Division of vital statistics.....		42,604	48,699	4	26	29	1,500	2,800	2,820
Indiana.....	do.....		10,000	14,000	9	5	7	200	2,700	3,200
Iowa.....	do.....		6,300	8,000	5	5	³ 6	900	(⁴)	(⁴)
Kansas.....	do.....	8,686	23,013	18,000	6	³ 8	³ 10	2,400	2,400	2,400
Kentucky.....	Bureau of vital statistics.....	9,000	10,000	12,742	11	11	13	2,400	2,500	2,500
Louisiana.....	do.....		18,211	(⁴)	1	15	27	1,800	3,000	3,000
Maine.....	Division of vital statistics.....	(²)	(²)	(²)	4	6	6	(⁴)	(⁴)	(⁴)
Maryland.....	Bureau of vital statistics.....	7,500	15,677	22,436	7	³ 11	11	2,400	2,740	4,000
Massachusetts.....	Under the secretary of state.....		28,760	(⁷)	9	18	(⁷)		3,000	(⁷)
Michigan.....	Bureau of records and statistics.....	(²)	29,919	35,600	13	19	19	1,500	4,500	5,500
Minnesota.....	Division of vital statistics.....	5,000	12,000	22,404	8	11	14	1,500	2,500	2,550
Mississippi.....	Bureau of vital statistics.....	6,000	12,000	12,000	5	10	9	2,000	3,600	4,000
Missouri.....	Division of vital statistics.....	13,005	18,500	32,000	11	11	15	1,800	3,300	2,100
Montana.....	do.....		5,000	3,916	1	³ 3	³ 2		3,000	3,000
Nebraska.....	do.....	(⁴)	(⁴)	(⁴)	2	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
Nevada.....	Central administration.....	(²)	(²)	(²)	(²)	(²)	(²)	(⁴)	(⁴)	(⁴)
New Hampshire.....	Division of vital statistics.....	2,800	(²)	(²)	(²)	(²)	(²)	(⁴)	(⁴)	(⁴)
New Jersey.....	Bureau of vital statistics.....	(⁴)	(⁴)	(⁴)	6	12	16	2,250	4,200	4,500
New Mexico.....	State registrar's office.....		3,860	8,500		³ 3	6		2,100	2,400
New York.....	Division of vital statistics.....		62,869	102,722	14	42	50	4,000	5,000	5,500
North Carolina.....	Bureau of vital statistics.....	15,656	24,936	29,630	6	12	18	2,500	4,000	4,600
North Dakota.....	do.....	600	8,400	5,400	³ 1	³ 4	3	(⁴)	(⁴)	1,800
Ohio.....	Division of vital statistics.....	(⁷)	39,620	35,140	25	27	26	2,000	4,000	4,000
Oklahoma.....	Bureau of vital statistics.....	3,400	12,700	8,700	³ 2	³ 7	5		2,400	2,400

¹ Taken from Doctor Chapin's Report on State Public Health Work.

² Included under central administration. (See Table 6, p. 36.)

³ Officials included whose time is devoted to more than 1 activity.

⁴ The executive officer is the State registrar.

⁵ The public health adviser is the State registrar.

⁶ No specific allotments by bureaus or divisions.

⁷ Not under the State department of health.

TABLE 31.—Vital statistics, 1915, 1925, and 1930—Continued

State	Bureau or division in charge in 1930	Appropriation for vital statistics			Personnel			Salary of registrar		
		1915	1925	1930	1915 ¹	1920	1935	1915 ¹	1925	1930
Oregon.....	Division of vital statistics.....	2,627	3,700	3,700	1	4	4	(⁴)	(⁴)	(⁴)
Pennsylvania..	Bureau of vital statistics.....	86,000	119,592	119,592	25	51	94	4,000	3,783	5,500
Rhode Island..	Division of central administration.....	(²)	(²)	(²)	(²)	(²)	(²)	(⁴)	(⁴)	(⁴)
South Carolina..	Bureau of vital statistics.....	4,832	7,675	8,305	6	4	4	1,200	2,400	3,000
South Dakota..	Division of vital statistics.....	4,978	5,070	5,070	3	7	4	(⁴)	(⁴)	(⁴)
Tennessee.....	do.....	7,818	18,650	26,600	4	8	10	3,000	3,125	3,600
Texas.....	Bureau of vital statistics.....	1,800	10,676	19,750	2	9	12	2,400	4,000	4,000
Utah.....	do.....	(⁶)	(⁶)	(⁶)	2	4	5	(⁴)	(⁴)	(⁴)
Vermont.....	Central administration and division of vital statistics.....	(²)	(²)	(²)	(²)	(²)	(²)	(⁴)	(⁴)	(⁴)
Virginia.....	Bureau of vital statistics.....	10,365	26,285	33,935	5	16	18	2,000	3,000	3,750
Washington.....	Division of vital statistics.....	3,000	6,420	7,568	2	5	4	(⁴)	(⁴)	(⁴)
West Virginia..	do.....	(⁷)	16,592	13,700	1	9	8	3,504	3,700	3,700
Wisconsin.....	Bureau of vital statistics.....	9,800	17,560	17,560	8	12	12	2,100	3,600	3,600
Wyoming.....	Division of vital statistics.....	(²)	(²)	(²)	(²)	(²)	2	(⁴)	(⁴)	(⁴)

¹ Taken from Doctor Chapin's Report on State Public Health Work.² Included under central administration. (See Table 6, p. 36.)³ Officials included whose time is devoted to more than 1 activity.⁴ The executive officer is the State registrar.⁵ No specific allotments by bureaus or divisions.⁶ Not under the State department of health.⁷ The sanitary engineer is the State registrar.TABLE 32.—States arranged according to the percentage of total State legislative appropriation for health work allotted to vital statistics, 1930¹

State	State legislative appropriation	State legislative appropriation for vital statistics	Percentage	Per capita
Arkansas.....	\$86,400	\$33,900	39.2	0.018
New Mexico.....	34,500	8,500	24.6	.020
Florida.....	267,965	57,000	21.3	.039
Georgia.....	165,000	28,000	17.0	.010
Missouri.....	188,750	32,000	17.0	.009
Kansas.....	108,456	18,000	16.6	.010
North Dakota.....	33,950	5,400	15.9	.008
Washington.....	50,000	7,568	15.1	.005
South Dakota.....	51,058	5,070	9.9	.007
Iowa.....	81,525	8,000	9.8	.003
West Virginia.....	140,800	13,700	9.7	.008
Virginia.....	352,645	33,935	9.6	.014
Texas.....	213,520	19,750	9.2	.003
Kentucky.....	145,400	12,742	8.8	.005
Minnesota.....	275,300	22,404	8.1	.009
Illinois.....	642,261	48,699	7.6	.006
Pennsylvania.....	1,577,120	119,592	7.6	.012
Idaho.....	37,750	2,820	7.5	.006
Oregon.....	50,512	3,700	7.3	.004
Colorado.....	65,550	4,700	7.2	.005
Michigan.....	512,900	35,600	6.9	.007
Montana.....	60,400	3,916	6.5	.007
Alabama.....	635,813	40,800	6.4	.015
Connecticut.....	324,309	20,723	6.4	.013
Mississippi.....	200,800	12,000	6.0	.006
North Carolina.....	491,470	29,630	6.0	.009
Ohio.....	652,823	35,140	5.4	.005
California.....	386,550	20,610	5.3	.004
Indiana.....	266,500	14,000	5.3	.004
Maryland.....	429,692	22,436	5.2	.014
Wisconsin.....	352,313	17,560	5.0	.006
Tennessee.....	383,070	18,800	4.9	.007
South Carolina.....	171,863	8,305	4.8	.005
New York.....	2,273,693	102,722	4.5	.002
Oklahoma.....	196,950	8,700	4.4	.004
Delaware.....	84,000	2,000	2.4	.008

¹ Under central administration: Arizona, Maine, Nevada, New Hampshire, Rhode Island, Vermont, and Wyoming. Data not available: Louisiana, Nebraska, New Jersey, and Utah. Under secretary of state: Massachusetts.

TABLE 33.—*Vital statistics, 1930*

State	Primary registration district	Local registrar appointed by—	Registrar paid		
			Fee	Per record	By whom
Alabama.....	Each voting precinct.....	State department of health.....	Yes....	\$0.25	County.
Arizona.....	City, town, county exclusive of towns.	State registrar.....	Yes....	.50	Do.
Arkansas.....	Township or incorporated town.	do.....	Yes....	.25	(¹)
California.....	City, town, county ²	Election or State registrar.....	(³)	.25	County.
Colorado.....	do. ²	State board of health or registrar.	Yes....	.25	Locally.
Connecticut.....	Each town.....	Election or mayor.....	Yes....	.20	Do.
Delaware.....	Hundred.....	State board of health.....	Yes....	.25	County.
Florida.....	City, town, voting precinct.	State registrar.....	Yes....	.25	(¹)
Georgia.....	Militia district, incorporated town, or city.	State board of health.....	Yes....	.50	County.
Idaho.....	City, town, county.....	Department of public welfare.	Yes....	.25	Do.
Illinois.....	City, village, incorporated town. ⁴	Election or State health department.	(⁵)	.25	Do.
Indiana.....	City, town, county.....	Election.....	No ⁶	(⁵)	Locally.
Iowa.....	City, incorporated town, and township.	County board or local board of health.	Yes....	.25	Do.
Kansas.....	City, town, township.....	Election or city council.....	Yes....	.25	County.
Kentucky.....	City, town, county ²	Election or county health officer.	Yes....	.25	Do.
Louisiana.....	City, town, police jury ward.	State registrar.....	Yes....	.25	Locally.
Maine.....	City, town.....	Election or municipal officer.	(⁸)	.25	Town.
Maryland.....	Election districts.....	Election, mayor, county health officer.	Yes....	.25	County.
Massachusetts.....	City, town.....	Election or mayor.....	(⁸)	(⁹)	Locally.
Michigan.....	City, village, township ⁷	Election or State health commissioner.	Yes....	.25	County.
Minnesota.....	City, town, village.....	Election or city council.....	(⁸)	.25	Do.
Mississippi.....	Town, voting precinct.....	State registrar.....	Yes....	(⁹)	Do.
Missouri.....	City, town, county ²	do.....	Yes....	.25	Do.
Montana.....	City, town.....	Election or State registrar.....	Yes....	.25	Do.
Nebraska.....	City, township, village.....	Department of public welfare.	Yes....	.25	Do.
Nevada.....	Incorporated town, county.	State health officer.....	Yes....	.50	(¹)
New Hampshire.....	City, town.....	Election.....	Yes....	.15	Locally.
New Jersey.....	City, borough, town, township.	Local board of health.....	(¹⁰)	.25	Do.
New Mexico.....	City, town, village, school district.	County board or county health officer.	(¹⁰)	.25	County.
New York.....	City, town, incorporated village.	Election, mayor, local board of health.	Yes....	.25	Locally.
North Carolina.....	City, incorporated town, township.	Mayor or county commissioner.	Yes....	.50	Do.
North Dakota.....	City, township, village.....	Election or State health officer.	(¹¹)	.25	County.
Ohio.....	do.....	Election or city board of health.	Yes....	.25	Do.
Oklahoma.....	City, town, township.....	State commissioner of health.	Yes....	.25	Do.
Oregon.....	Districts selected by the State registrar.	Election.....	Yes....	.25	Do.
Pennsylvania.....	City, borough, township.....	Secretary of health.....	Yes....	.50	Do.
Rhode Island.....	City, town.....	Election or town council.....	(¹²)	.25	Locally.
South Carolina.....	City, township.....	Election or State registrar.....	Yes....	.25	County.
South Dakota.....	County.....	Election.....	Yes....	.25	Do.
Tennessee.....	City, incorporated town, civil district.	State registrar.....	Yes....	.25	Do.
Texas.....	City or town of over 2,500 population, justice precinct.	Election or State registrar.....	(¹³)	.50	Locally.
Utah.....	Cities of first and second class, voting precinct.	City and county commissioners.	(¹²)	(¹²)	County.
Vermont.....	Town.....	Election.....	Yes....	.10	Town.

¹ Paid by the State department of health.² Exclusive of incorporated towns and cities.³ Fee or salary according to appointment.⁴ Also each township in counties under township organization and each road district in counties not under such organization.⁵ Local registrars are paid a regular salary.⁶ Births \$1, deaths 50 cents.⁷ Also State hospitals and charitable or penal institutions.⁸ 25 cents for a delayed report and 40 cents for a regular report.⁹ Some local registrars receive a salary.¹⁰ If the local health officer is the registrar, he receives no additional compensation.¹¹ In addition, \$2 for each monthly report.¹² Local registrars are paid a salary at the rate of \$3 per day for time actually required in carrying out the provisions of the law. In cities, the health officer is the local registrar.

TABLE 33.—*Vital statistics, 1930*—Continued

State	Primary registration district	Local registrar appointed by—	Registrars paid		
			Fee	Per record	By whom
Virginia.....	City, town, magisterial district.	Election or State registrar.....	(¹)	.25	Locally.
Washington.....	First and second class cities, counties exclusive of such cities.	do.....	Yes...	.25	County.
West Virginia....	City, town, magisterial district.	State registrar.....	Yes...	.25	Do.
Wisconsin.....	City, township, village....	Election or city council.....	Yes...	.20	Do.
Wyoming.....	City, town, county.....	State board of health.....	Yes...	.50	Do.

¹ Fee or salary according to appointment.

LOCAL REGISTRARS

The States vary considerably in the method of selecting the local registrar of vital statistics. In 6 States the local registrars are appointed by the State board or department of health; in 8 States by the State registrar; in 3 States by the State health executive; in 1 State by the State board of health or state registrar; in 5 States by the local government; and in 5 States the local registrars are elected as city or town clerks and are local registrars ex officio. (See Table 33.) In the remaining 20 States the local registrars are elected by the people or appointed by an official or board. In Georgia the justice of peace or notary public is the local registrar in each militia district.

FEEES AND SALARIES

In 35 States, the local registrar receives a fee for each birth or death record; in 2 States a salary; and in 11 States either a fee or a salary, according to the method of appointment. In New Jersey a few of the local registrars receive a salary, while the majority receive a fee of 25 cents. In New Mexico the local registrar receives no additional compensation if he is the local health officer also. The fees received by the local registrars vary in amounts from 10 to 50 cents, except in Massachusetts where they receive \$1 for birth and 50 cents for death certificates, and in Mississippi where they receive 25 cents for a delayed report and 40 cents for a regular report. In 33 of the States the local registrars receive a fee of 25 cents per record and in 7 States 50 cents per record. (See Table 33 for amounts.) With the exception of Arkansas, Florida, and Nevada the registrars are paid by the local government.

REGISTRATION OF DEATHS AND BIRTHS

Deaths.—Table 34 gives the States in the death-registration area; the percentage completeness of the reporting of deaths; and the percentage of the total number of deaths reported by physicians, under-

takers, and others. It also indicates when death reports must be submitted to the local registrar and to the State registrar, whether an adequate law or the so-called model law has been adopted, and whether or not the standard certificate has been adopted. The registration of deaths and births is required, in every State. Forms for reporting births and deaths are supplied by all the State departments of health. Postage is paid by the local organization in most cases. Deaths are, as a rule, reported by either the attending physicians or the undertaker. Thirty States record that deaths must be reported to the local registrar before burial⁷; nine States record that they must be reported at once; four States within 72 hours; one State within 48 hours; one State within 36 hours; two States within 5 days; and one State between the 1st and 10th of the month. Deaths are reported to the State registrar each month in all States.

Births.—Table 35 indicates the States in the birth-registration area; gives the percentage completeness of the reporting of births; and the percentage of the total number of births reported by physicians, midwives, and others. It also indicates when birth reports must be submitted to the local registrar and to the State registrar, and records whether or not the States report stillbirths as births and deaths. The majority of births are reported by physicians. However, in Mississippi 45 per cent of the births are reported by midwives, in Louisiana 43 per cent, in South Carolina 40 per cent, and in New Jersey 34 per cent. In 31 States births are reported to the local registrar within 10 days and in the others within an even shorter period of time, except in Massachusetts, which requires notification within 48 hours and a birth report within 15 days, and South Dakota, which requires the attending physician to make out a birth certificate within 30 days and to transmit it to the local registrar within an additional 5 days. The local registrar, in turn, reports monthly to the State registrar in all States, except Massachusetts, where births are reported to the secretary of state annually.

Stillbirths.—Stillbirths are reported in all States as births and deaths, with the exception of Connecticut, Illinois, Mississippi, New Jersey, and Oregon. In Connecticut, Illinois, New Jersey, and Oregon they are reported as stillbirths, and a separate form is used. In Mississippi stillbirths are recorded as births only.

⁷ According to the U. S. Census Bureau death must be reported to the local registrar before burial in all the States.

TABLE 34.—Registration of deaths in 1929

State	Date admitted to registration area	Per cent completeness of reporting	Percentage of total deaths reported by—			Reports due—		Adequate law used	Standard certificate used
			Physicians	Undertakers	Others	Local registrar ¹	State registrar		
Alabama.....	1925	95	10	80	10	Within 72 hours.	By the 10th.	Yes.	Yes. ²
Arizona.....	1926	90	90	0	10	do.	do.	Yes.	Yes.
Arkansas.....	1927	90	0	100	0	At once.	do.	Yes.	Yes.
California.....	1906	100	100	0	0	Within 5 days.	By the 5th.	Yes.	Yes.
Colorado.....	1906	99	99	0	1	Before burial.	do.	Yes.	Yes.
Connecticut.....	1890	99	100	0	0	At once.	By the 7th.	No. ³	No.
Delaware.....	1919	99	90	0	10	Before burial.	By the 10th.	Yes.	Yes.
Florida.....	1919	90	0	100	0	do.	do.	Yes.	Yes.
Georgia.....	1928	90	0	88	0	do.	do.	Yes.	Yes.
Idaho.....	1922	95	100	0	0	At once.	do.	Yes.	Yes.
Illinois.....	1918	98	1	98	1	Within 72 hours.	do.	Yes.	Yes.
Indiana.....	1900	96	100	0	0	At once.	By the 4th.	Yes.	Yes.
Iowa.....	1923	(⁴)	(⁵)	(⁵)	(⁵)	Before burial.	By the 10th.	Yes.	Yes.
Kansas.....	1914	99	98	0	2	At once.	do.	Yes.	Yes.
Kentucky.....	1911	96	85	0	15	Before burial.	do.	Yes.	Yes.
Louisiana.....	1918	(⁴)	100	0	0	1st to 10th.	By the 15th.	Yes.	Yes.
Maine.....	1900	98	(⁷)	(⁷)	(⁷)	Before burial.	do.	Yes.	No.
Maryland.....	1906	99	(⁵)	(⁵)	(⁵)	do.	By the 5th.	Yes.	Yes.
Massachusetts.....	1880	100	100	0	0	At once.	By the 10th.	Yes.	Yes.
Michigan.....	1900	98	0	100	0	Before burial.	By the 4th.	Yes.	Yes.
Minnesota.....	1910	99	(⁹)	(⁹)	0	do.	By the 10th.	Yes.	Yes.
Mississippi.....	1919	90	0	50	50	do.	do.	Yes.	Yes.
Missouri.....	1911	92	90	10	0	do.	do.	Yes.	Yes.
Montana.....	1910	98	0	99	1	do.	By the 5th.	Yes.	Yes.
Nebraska.....	1920	98	99	0	1	do.	do.	Yes.	Yes.
Nevada.....	1929	(⁴)	(⁵)	(⁵)	(⁵)	do.	do.	Yes.	Yes.
New Hampshire.....	1890	99	100	0	0	do.	By the 12th.	Yes.	No.
New Jersey.....	1880	100	95	0	5	do.	By the 10th.	Yes.	Yes.
New Mexico.....	1929	90	0	50	50	At once.	do.	Yes.	Yes.
New York.....	1890	100	97	0	3	Within 72 hours.	By the 5th.	Yes.	Yes.
North Carolina.....	1916	95	(⁵)	(⁵)	(⁵)	Before burial.	do.	Yes.	Yes.
North Dakota.....	1924	99	96	0	4	Within 48 hours.	do.	Yes.	Yes.
Ohio.....	1911	99	0	99	1	Before burial.	By the 10th.	Yes.	Yes.
Oklahoma.....	1928	94	65	25	10	do.	do.	Yes.	Yes.
Oregon.....	1918	99	(⁵)	(⁵)	(⁵)	do.	do.	Yes.	Yes.
Pennsylvania.....	1906	100	0	100	0	Within 5 days.	By the 5th.	Yes.	Yes.
Rhode Island.....	1890	100	0	100	0	At once.	By the 20th.	Yes.	No.
South Carolina.....	1916	90	50	20	30	do.	By the 10th.	Yes.	Yes.
South Dakota.....	1930	90	90	0	10	Before burial.	By the 15th.	No.	Yes.
Tennessee.....	1917	90	0	95	5	do.	By the 10th.	No. ³	Yes.
Texas.....	85-90	85-90	0	90	10	do.	do.	Yes.	Yes.
Utah.....	1910	99	95	0	5	do.	By the 5th.	Yes.	Yes.
Vermont.....	1890	(⁵)	100	0	0	Within 36 hours.	By the 30th.	Yes.	Yes.
Virginia.....	1913	95	(⁵)	(⁵)	(⁵)	Before burial.	By the 10th.	Yes.	Yes.
Washington.....	1908	(⁵)	(⁵)	(⁵)	(⁵)	do.	do.	Yes.	Yes.
West Virginia.....	1925	90	0	70	30	do.	do.	Yes.	Yes.
Wisconsin.....	1908	98	0	98	2	do.	By the 7th.	Yes.	Yes.
Wyoming.....	1922	98	0	98	2	do.	By the 10th.	Yes.	Yes.

¹ According to the Federal Census Bureau, deaths must be reported to the local registrar before burial in all States.

² Revised.

³ Model law not used but adequate law adopted.

⁴ By coroners.

⁵ No record.

⁶ Local registrars and coroners.

⁷ A few by physicians, mostly by undertakers.

⁸ Practically all by physicians.

⁹ 100 per cent by physicians and undertakers jointly.

VITAL STATISTICS LAWS

Model law.—The laws enacted by the various States since 1905 have been for the most part based on the model law. Such States as Connecticut, Maine, Rhode Island, and Vermont had satisfactory laws before the model law was framed.

Standard certificate.—The standard certificate for births and deaths is used in every State except Connecticut, Maine, New Hampshire, and Rhode Island.

International list.—The International List of the Causes of Death is used in every State.

UNLAWFUL DEATH

The coroner is notified in 41 States in case death is supposed to be caused by unlawful or suspicious means. The following are exceptions to this procedure: In Connecticut, Maine, Massachusetts, and Rhode Island the medical examiner is notified; in New Hampshire the death is investigated by the State medical examiners and the State pathologist; in Vermont investigation is made by the director of the State laboratory; in Wisconsin the matter is referred to the district attorney, and he may order a coroner's inquest.

BURIAL PERMITS

In each State the undertaker or person acting as undertaker must file a certificate of death with the local registrar and obtain a burial or removal permit prior to any disposition of the body. The burial permit is issued by the local registrar in most cases. Burial permits are issued by a justice of peace in South Dakota.

TABLE 35.—Registration of births in 1929

State	Date admitted to registration area	Per cent completeness of reporting	Percentage of total births reported by—			Reports due—		Still-births reported as births and deaths
			Physicians	Midwives	Others	Local registrar	State registrar	
Alabama.....	1927	90	70	28	2	Within 10 days..	By the 10th..	Yes.
Arizona.....	1926	90	90	5	5	do.....	do.....	Yes.
Arkansas.....	1927	90	70	30	0	do.....	do.....	Yes.
California.....	1919	95	92	8	0	Within 4 days..	By the 5th..	Yes.
Colorado.....	1928	95	90	10	0	Within 10 days..	do.....	Yes.
Connecticut.....	1915	95-97	87	13	0	do.....	By the 15th..	No.
Delaware.....	1921	95	80	20	0	do.....	By the 10th..	Yes.
Florida.....	1924	90	66	33	1	do.....	do.....	Yes.
Georgia.....	1923	90	67	33	0	do.....	do.....	Yes.
Idaho.....	1926	92	96	3	1	do.....	do.....	Yes.
Illinois.....	1922	96	92	3	5	do.....	do.....	No.
Indiana.....	1917	96	95	5	0	Within 36 hours..	By the 4th..	Yes.
Iowa.....	1924	(¹)	(¹)	(¹)	(¹)	Within 10 days..	By the 5th..	Yes.
Kansas.....	1917	96	99	1	0	do.....	By the 10th..	Yes.
Kentucky.....	1917	95	82	18	0	do.....	do.....	Yes.
Louisiana.....	1927	(¹)	56	43	1	do.....	By the 15th..	Yes.
Maine.....	1915	95	(²)	(²)	0	Within 6 days..	do.....	Yes.
Maryland.....	1916	97	83	17	0	Within 4 days..	By the 5th..	Yes.
Massachusetts.....	1915	100	100	0	0	Within 15 days..	Once a year..	Yes.
Michigan.....	1915	96	99	1	0	Within 5 days..	By the 4th..	Yes.
Minnesota.....	1915	98	93	3	4	Within 10 days..	By the 10th..	Yes.
Mississippi.....	1921	95	54	45	1	do.....	do.....	No.
Missouri.....	1927	95	95	4	1	do.....	do.....	Yes.
Montana.....	1922	95	93	5	2	do.....	By the 5th..	Yes.
Nebraska.....	1920	95	98	1	1	Within 5 days..	do.....	Yes.
Nevada.....	1929	95	99	0	1	Within 10 days..	By the 10th..	Yes.
New Hampshire.....	1915	99	99	1	0	Within 6 days..	By the 12th..	Yes.
New Jersey.....	1921	98	66	34	0	Within 5 days..	By the 10th..	No.
New Mexico.....	1929	90	60	25	15	Within 10 days..	do.....	Yes.

¹ No record.

² Majority by physicians, a few by midwives.

TABLE 35.—*Registration of births in 1929*—Continued

State	Date admitted to registration area	Per cent completeness of reporting	Percentage of total births reported by—			Reports due—		Still-births reported as births and deaths
			Physicians	Midwives	Others	Local registrar	State registrar	
New York.....	1915	96	94	5	1	Within 5 days...	By the 5th...	Yes.
North Carolina.....	1917	92	70	30	0	do.....	do.....	Yes.
North Dakota.....	1924	97	89	6	5	Within 3 days...	do.....	Yes.
Ohio.....	1917	93	98	2	0	Within 10 days...	By the 10th...	Yes.
Oklahoma.....	1928	94	95	3	2	do.....	do.....	Yes.
Oregon.....	1919	98	97	0	3	do.....	do.....	No.
Pennsylvania.....	1915	97	93	6	1	do.....	do.....	Yes.
Rhode Island.....	1915	90	91	8	1	Within 48 hours...	By the 20th...	Yes.
South Carolina.....	1928	90	40	40	20	Within 10 days...	By the 10th...	Yes.
South Dakota.....		90	95	3	2	Within 10 days...	By the 10th...	Yes.
Tennessee.....	1927	90	88	12	0	Within 10 days...	By the 10th...	Yes.
Texas.....		85-90	80	15	5	Within 5 days...	do.....	Yes.
Utah.....	1917	98	90	9	1	(³)	By the 5th...	Yes.
Vermont.....	1915	(¹)	100	0	0	Within 10 days...	By the 30th...	Yes.
Virginia.....	1917	95	70	29	1	do.....	By the 10th...	Yes.
Washington.....	1917	(¹)	(¹)	(¹)	(¹)	do.....	do.....	Yes.
West Virginia.....	1925	90	92	8	0	do.....	do.....	Yes.
Wisconsin.....	1917	96	95	4	1	Within 5 days...	By the 7th...	Yes.
Wyoming.....	1922	90	98	0	2	Within 10 days...	By the 10th...	Yes.

¹ No record.³ Within 10 days if birth is attended by a physician or midwife, otherwise within 3 days.

TABLE 36.—*Licensing of physicians, midwives, and undertakers*

State	Physicians		Midwives		Undertakers or embalmers	
	Licensed	By whom—	Licensed	By whom—	Licensed	By whom—
Alabama.....	Yes.....	Board of medical examiners.....	Yes.....	County boards of health.....	Yes.....	Board of embalming.
Arizona.....	Yes.....	do.....	No.....	Board of health.....	Yes.....	Board of embalmers.
Arkansas.....	Yes.....	do.....	Yes ¹	Board of medical examiners.....	Yes.....	Embalming board.
California.....	Yes.....	do.....	Yes.....	do.....	Yes.....	Board of embalmers.
Colorado.....	Yes.....	do.....	Yes.....	Department of health.....	Yes.....	Board of examining examiners.
Connecticut.....	Yes.....	Department of health.....	Yes.....	Board of health.....	Yes.....	Board of examiners of embalmers.
Delaware.....	Yes.....	Medical council.....	Yes.....	do.....	Yes.....	Board of examiners in embalming.
Florida.....	Yes.....	Board of medical examiners.....	Yes.....	do.....	Yes.....	Board of embalmers.
Georgia.....	Yes.....	Commissioner of law enforcement.....	No.....	Department of registration and education.....	(¹).....	
Idaho.....	Yes.....	Department of registration and education.....	Yes.....	Board of medical registration.....	Yes.....	Department of registration and education.
Illinois.....	Yes.....	Health department.....	Yes.....	Board of medical registration.....	Yes.....	Embalming board.
Indiana.....	Yes.....	Board of medical registration.....	No.....	do.....	Yes.....	Health department.
Iowa.....	Yes.....	Board of medical registration and examination.....	No.....	do.....	Yes.....	Board of embalmers.
Kansas.....	Yes.....	Board of health.....	Yes.....	Board of health.....	Yes.....	Board of undertakers and embalmers.
Kentucky.....	Yes.....	Board of medical examiners.....	Yes.....	Board of medical examiners.....	Yes.....	Do.
Louisiana.....	Yes.....	Board of registration of medicine.....	Yes.....	Board of medical examiners.....	Yes.....	Board of embalmers.
Maine.....	Yes.....	Board of medical examiners.....	No.....	Department of health.....	Yes.....	Board of undertakers.
Maryland.....	Yes.....	Board of registration.....	Yes.....	do.....	Yes.....	Board of registration in embalming.
Massachusetts.....	Yes.....	do.....	No.....	Board of medical examiners.....	Yes.....	Health commissioner.
Michigan.....	Yes.....	Board of medical examiners.....	No.....	Board of medical examiners.....	Yes.....	Board of health.
Minnesota.....	Yes.....	Board of health.....	Yes.....	Board of medical examiners.....	Yes.....	Board of undertakers and embalmers.
Mississippi.....	Yes.....	Board of health.....	No.....	Board of health.....	Yes.....	Board of embalmers.
Missouri.....	Yes.....	do.....	Yes.....	do.....	Yes.....	Department of public welfare.
Montana.....	Yes.....	Board of medical examiners.....	No.....	Local authorities.....	Yes.....	Embalmers' examining board.
Nebraska.....	Yes.....	Department of public welfare.....	No.....	Board of medical examiners.....	Yes.....	Board of undertakers and embalmers.
Nevada.....	Yes.....	Board of medical examiners.....	Yes.....	do.....	Yes.....	Board of embalmers.
New Hampshire.....	Yes.....	Board of medical registration.....	No.....	Department of health.....	Yes.....	Department of health.
New Jersey.....	Yes.....	Board of medical examiners.....	Yes.....	do.....	Yes.....	Do.
New Mexico.....	Yes.....	do.....	No.....	Medical board.....	Yes.....	Board of embalming examiners.
New York.....	Yes.....	Department of education.....	No.....	Board of medical education and licensure.....	Yes.....	Board of embalmers.
North Carolina.....	Yes.....	Board of medical examiners.....	Yes.....	Public-health commission.....	Yes.....	Embalmers' examining board.
Ohio.....	Yes.....	Medical board.....	No.....	do.....	Yes.....	Board of undertakers.
Oklahoma.....	Yes.....	Board of medical examiners.....	No.....	do.....	Yes.....	Board of examiners in embalming.
Oregon.....	Yes.....	do.....	No.....	do.....	Yes.....	
Pennsylvania.....	Yes.....	Board of medical education and licensure.....	Yes.....	do.....	Yes.....	
Rhode Island.....	Yes.....	Public-health commission.....	Yes.....	do.....	Yes.....	

¹ Required to have a revocable permit.² No information received.³ In a number of counties midwives are licensed by the county boards of health.

TABLE 36.—*Licensing of physicians, midwives, and undertakers—Continued*

State	Physicians		Midwives		Undertakers or embalmers	
	Licensed	By whom—	Licensed	By whom—	Licensed	By whom—
South Carolina.....	Yes.....	Board of medical examiners.....	Yes.....	Board of health.....	Yes.....	Board of health.
South Dakota.....	Yes.....	Board of health.....	No.....	.....	Yes.....	Embalmers board.
Tennessee.....	Yes.....	Board of medical examiners.....	No.....	.....	Yes.....	Board of embalmers.
Texas.....	Yes.....	do.....	No.....	.....	Yes.....	Do.
Utah.....	Yes.....	Department of registration.....	Yes.....	Department of registration.....	Yes.....	Department of registration.
Vermont.....	Yes.....	Board of medical registration.....	No.....	.....	Yes.....	Board of embalmers.
Virginia.....	Yes.....	Board of medical examiners.....	Yes.....	Department of health.....	Yes.....	Commissioner of revenue.
Washington.....	Yes.....	Department of licenses.....	Yes.....	Department of licenses.....	Yes.....	Department of licenses.
West Virginia.....	Yes.....	Public-health council.....	Yes.....	Department of health.....	Yes.....	Board of embalmers.
Wisconsin.....	Yes.....	Board of medical examiners.....	Yes.....	Board of medical examiners.....	Yes.....	Board of health.
Wyoming.....	Yes.....	do.....	No.....	.....	Yes.....	Board of embalmers.

LICENSING

The State board of health issues licenses to physicians in 9 States, to midwives in 12 States, and to undertakers in 8 States. Table 36 gives the method adopted in each State. Six States make a special appropriation for this activity. The amount appropriated for 1930, together with the personnel and salary of the director, is given in Table 37.

TABLE 37.—*Licensing, 1930*

State	Bureau or division in charge	Total appropriation	Personnel	Salary of director
Iowa.....	Division of examinations and licensures.....	\$2,400	1	\$2,400
Kentucky.....	Medical enforcement act.....	4,704	2	(¹)
Michigan.....	Bureau of licensing embalmers.....	3,700	1	3,500
Minnesota.....	Licensing embalmers.....	4,306	1	(¹)
South Dakota.....	Division of medical licensure.....	1,300	1	1,200
Wisconsin.....	Embalming division.....	1,750	(¹)	(¹)

¹ Under the central administrative bureau or division.

8. PUBLIC-HEALTH LABORATORIES

When bacteriological technique became available for the diagnosis of communicable diseases, the public-health diagnostic laboratory became an essential branch of public-health organizations. In the early period the health departments had to rely largely on the laboratory facilities of universities or other scientific institutions. When, however, laboratory activities increased in scope and volume, most State health executives established public-health laboratories as a branch of their organizations. Where practicable, they were housed with other branches of the health department. In 1890 Minnesota established a smallpox vaccine laboratory, and in 1894 Rhode Island established a diagnostic laboratory. In the same year Massachusetts reported the manufacture and also the purchase of antitoxin for use in combating diphtheria. Since that date laboratory service has grown rapidly. By 1915 Doctor Chapin found in his survey that all States except New Mexico and Wyoming had arranged for laboratory facilities.

ORGANIZATION

In Table 38 comparison is made for each State for the years 1915, 1925, and 1930, respectively, of the amount of money applied to State laboratory service, the number of persons employed, and the salary of the director. It will be noted that the growth in expenditures and in the number of persons employed in most States is remarkable.

By 1930 a laboratory division, had been organized in all State departments of health except those of Iowa, Minnesota, Nevada, North Dakota, and Wyoming. Minnesota maintains three laboratories, one under the division for preventable diseases, a second under sanitary engineering, and a third under venereal-disease control.

TABLE 38.—Public-health laboratory service, 1915, 1925, and 1930

State	Bureau or division in charge in 1930	Appropriation for public-health laboratories			Personnel			Salary of director		
		1915	1925	1930	1915 ¹	1925	1930	1915 ¹	1925	1930
Alabama.....	Bureau of laboratories.....	\$6, 100	\$44, 796	\$86, 504	4	20	30	\$2, 400	\$4, 000	\$4, 500
Arizona.....	State laboratory.....		5, 550	8, 940	1	24	24		3, 000	3, 000
Arkansas.....	State hygiene laboratory.....		12, 000	6, 120	1	5	3		3, 000	2, 500
California.....	State bacteriological laboratory.....	18, 175	23, 150	26, 333	6	29	10	3, 000	4, 000	4, 200
Colorado.....	Division of bacteriology.....	2, 000	6, 650	7, 100	21	23	2	1, 000	3, 600	3, 600
Connecticut.....	Bureau of laboratories.....		35, 300	73, 667	24	15	32	1, 500	3, 600	4, 680
Delaware.....	State laboratory.....	3, 500	9, 500	9, 000	3	25	4	2, 000	2, 500	2, 700
Florida.....	Bureau of laboratories.....		72, 078	43, 940	7	18	20	2, 500	3, 500	3, 600
Georgia.....	Division of laboratories.....		21, 017	28, 000	1	24	16	2, 400	(3)	(4)
I Idaho.....	State laboratory.....		7, 250	10, 400	3	16	29	1, 800	4, 200	4, 200
Illinois.....	Division of bacteriology and pathology.....	10, 000	105, 340	115, 134	8	19	10	2, 000	3, 000	3, 300
Indiana.....	Division of laboratories.....		13, 500	21, 500	2	25	26		2, 400	2, 400
Iowa.....	Under State university.....	2, 200	9, 249	10, 450	5	5	7	2, 400	2, 400	3, 600
Kansas.....	Public-health laboratory.....	6, 000	\$8, 500	\$9, 226	5	5	5	2, 400	2, 600	2, 600
Kentucky.....	Bureau of bacteriology.....		13, 882	(6)	1	15	5	1, 200	3, 600	3, 900
Louisiana.....	Bureau of laboratories.....		(7)	38, 792	7	19	22	1, 800	3, 500	4, 000
Maine.....	Division of preventable diseases—Diagnostic laboratory.....	20, 829	24, 857	15, 078	6	6	6	1, 800	3, 480	4, 000
Maryland.....	Bureau of bacteriology.....		11, 538	15, 078	5	46	53	1, 800	4, 800	6, 000
Massachusetts ¹	Bureau of chemistry.....	25, 640	96, 200	132, 275	17	17	17	2, 500	4, 300	4, 800
Michigan.....	Division of biological laboratories.....		40, 700	50, 000	4	63	78		6, 000	7, 000
Minnesota.....	Division of water and sewage laboratories.....		156, 832	185, 470						
Mississippi.....	Bureau of laboratories.....	3, 300	20, 000	20, 000	3	9	10	2, 000	4, 500	4, 500
Missouri.....	3 laboratories under separate divisions.....		15, 441	21, 000	2	5	8	1, 800	3, 300	4, 200
Montana.....	State hygiene laboratory.....		7, 533	10, 538	2	24	5	3, 000	4, 200	4, 200
Nebraska.....	State public-health laboratory.....		(6)	(6)	2	(6)	(9)	3, 000	(9)	(9)
Nevada.....	State laboratory.....		10, 910	10, 910	1	25	3	2, 400	4, 500	4, 000
New Hampshire.....	Under State university.....	3, 400	17, 150	17, 130	21	27	25	1, 200	(7)	4, 800
New Jersey.....	Division of pathology and bacteriology.....		(6)	(6)	3	(11)	16	2, 000	3, 900	4, 800
New Mexico.....	Bureau of bacteriology.....		6, 197	7, 300	2	23	4		2, 610	3, 000
New York.....	Public-health laboratories.....	156, 620	619, 170	680, 215	1	258	238	4, 000	7, 000	9, 000
North Carolina.....	Division of laboratories and research.....	18, 183	103, 598	104, 750	7	29	31	3, 000	5, 000	6, 000
North Dakota.....	Laboratory of hygiene.....	8, 000	19, 250	19, 630	7	8	19	(13)	(12)	(12)
Ohio.....	Under State university.....		40, 946	71, 100	2	32	38		4, 000	4, 000
Oklahoma.....	Division of laboratories.....		22, 600	17, 200	2	28	9		3, 600	3, 600
Oregon.....	State public-health laboratory.....	3, 251	6, 550	8, 200	2	2	3	2, 700	3, 600	3, 600
Pennsylvania.....	State hygiene laboratory.....		59, 000	75, 147	17	248	35	3, 000	5, 240	5, 740
Rhode Island.....	Bureau of laboratories.....		20, 000	23, 863	24	10	211	4, 000	4, 000	3, 000
South Carolina.....	Division of pathology and bacteriology.....		45, 830	12, 530	23	4	5	2, 500	3, 000	3, 000
	Hygienic laboratory.....									

South Dakota.....	State public-health laboratory.....	3,500	16,397	11,698	1	15	2	3,000	2,500	2,625
Tennessee.....	Division of laboratories.....	2,500	22,895	33,870	3	9	7	1,500	4,000	4,000
Texas.....	Bureau of laboratories.....	1,600	4,600	30,770	1	13	10	1,800	(13)	4,500
Utah.....	State board of health laboratory.....	-----	(9)	(9)	2	14	3	-----	3,600	3,000
Vermont.....	Laboratory of hygiene.....	-----	16,000	16,000	23	5	5	3,000	3,600	3,750
Virginia.....	Bureau of laboratories.....	-----	33,628	25,820	23	15	18	2,500	(13)	5,000
Washington.....	State board of health laboratory.....	1,200	6,540	10,070	22	15	16	2,820	(13)	(13)
West Virginia.....	State hygienic laboratories.....	-----	12,000	18,315	2	5	6	(11)	3,000	3,300
Wisconsin.....	Bureau of laboratories.....	-----	149,000	149,000	25	11	7	1,750	5,400	5,400
Wyoming.....	No State public-health laboratory.....	10,445	-----	-----	-----	-----	-----	-----	-----	-----

¹ Taken from Doctor Chapin's Report on State Public Health Work.

² Officials included whose time is devoted to more than one activity.

³ Public-health adviser is director.

⁴ State chemist is director. Listed under bureau of sanitary engineering. (See Table 47, p. 108.)

⁵ In addition, \$15,000 is appropriated directly to the Lexington laboratory.

⁶ No specific allotment by bureaus or divisions.

⁷ Under the division of administration. (See Table 6, p. 36.)

⁸ Diagnostic laboratory under communicable diseases and food and drug laboratory under division of food and drugs.

⁹ State health officer is the director.

¹⁰ Not given.

¹¹ Personnel of 19 for the bureaus of bacteriology and chemistry combined.

¹² Paid by the State university.

¹³ Director of the division of communicable diseases in charge.

¹⁴ Amount for branch and cooperative laboratories only.

Wyoming has no State health laboratory. In the other States, except Maryland, Massachusetts, and New Jersey, all laboratory work is under one director. In Maryland and New Jersey the work is conducted by the divisions of bacteriology and chemistry. Massachusetts has two separate laboratory services—biological, and water and sewage laboratories; the diagnostic laboratory is operated as an activity of the division of communicable diseases, and the division of food and drugs conducts a laboratory of its own. Although the University of Kentucky maintains a health laboratory at Lexington, the State department of health also maintains a diagnostic laboratory in its building in Louisville. Legislative appropriations for all laboratory work are made direct to the university in Iowa, Nevada, and North Dakota, where State health laboratories are maintained by the university independent of the State department of health.

In Wisconsin the laboratory service is administered as follows: (1) By the State laboratory of hygiene located at the university and maintained with a special appropriation made by the legislature to the university; (2) by the branch laboratory at Rhinelander which is maintained by the State department of health; and (3) by cooperative laboratories financed jointly by the local communities where they are located and the State department of health.

The State laboratories in Arizona, California, Minnesota, New Mexico, Ohio, Pennsylvania, and South Dakota are housed in university buildings but are financed and directed by the State departments of health.

In comparing the amounts appropriated for laboratory service in 1925 with those for 1930, it will be noted that 28 States have increased their appropriations, such as New York, Connecticut, Massachusetts (for the division of biological laboratories), Ohio, Michigan, Texas, and Alabama.

The salaries of laboratory directors in 1930 ranged from \$2,400 to \$9,000, the arithmetic average being \$4,133 as based on 43 salaries in 40 States. In comparing the 1925 and 1930 salaries, it will be noted that 23 States increased the salary of the laboratory director in amounts varying from \$100 to \$2,000. New Hampshire and Texas added full-time laboratory directors to their staff during this period. As Maryland, Massachusetts, and New Jersey operate two separate laboratories, they employ two directors. In the laboratories maintained by universities, the directors are employees of the universities. In Washington one director has charge of the laboratory and the division of communicable diseases.

The percentage of the total State health appropriations expended for laboratory service has determined the order in which the States are listed in Table 39. Expenditures for laboratory service made by 12 of the 38 States listed range from 0.0 to 10 per cent and 14 States

spend between 10 and 20 per cent of the total State legislative health appropriation for laboratory service. The per capita amount is listed in the last column.

BRANCH LABORATORIES

Branch laboratories have been established in 24 States as a means of providing prompt and adequate service to sections which found the State laboratory inaccessible and also with a view to alleviating the work of the central laboratory. This work has grown rapidly. In 1915 there were 24 branch laboratories in 9 States, in 1925 there were 85 in 22 States, and in 1930, 88 laboratories in 22 States. They are financed entirely or partially by the State department of health, by a special appropriation, or by local funds. The distribution of the branch laboratories for the years 1915, 1925, and 1930 is compared in Table 40, which also shows how they are financed.

TABLE 39.—States arranged according to the percentage of total State legislative appropriation for health work allotted to public-health laboratory service, 1930¹

State	State legis- lative ap- propriation	State legis- lative ap- propriation for labora- tory service	Percent- age	Per capita
Michigan.....	\$512,900	\$185,470	36.2	0.038
Vermont.....	45,000	16,000	35.6	.045
New Hampshire.....	50,150	17,300	34.5	.037
New York.....	2,273,693	680,215	29.9	.120
Idaho.....	37,750	10,400	27.5	.023
Arizona.....	30,340	8,940	26.9	.021
South Dakota.....	51,058	11,698	22.9	.017
Connecticut.....	324,309	73,667	22.7	.046
Massachusetts.....	829,995	182,275	22.0	.043
North Carolina.....	491,470	104,750	21.3	.033
New Mexico.....	34,500	7,300	21.2	.017
Washington.....	50,000	10,070	20.1	.006
Rhode Island.....	129,498	23,863	18.4	.035
Illinois.....	642,261	115,134	17.9	.015
Georgia.....	165,000	29,000	17.6	.010
Montana.....	60,400	10,538	17.4	.020
Florida.....	267,965	43,940	16.4	.030
Oregon.....	50,512	8,200	16.2	.009
Texas.....	213,520	30,770	14.4	.005
Maryland.....	429,692	54,870	12.8	.034
West Virginia.....	140,800	16,315	11.6	.009
Missouri.....	188,750	21,000	11.1	.006
Ohio.....	652,823	71,100	10.9	.011
Colorado.....	65,550	7,100	10.8	.007
Delaware.....	84,000	9,000	10.7	.038
Alabama.....	635,813	66,504	10.5	.025
Kansas.....	108,456	10,450	9.6	.006
Tennessee.....	383,070	33,920	8.9	.013
Oklahoma.....	196,950	17,200	8.7	.007
Mississippi.....	200,800	16,400	8.2	.008
Indiana.....	266,500	21,500	8.1	.007
South Carolina.....	171,863	12,530	7.3	.007
Virginia.....	352,645	25,820	7.3	.011
Arkansas.....	86,400	6,120	7.1	.003
California.....	386,550	26,330	6.8	.005
Kentucky.....	145,400	9,226	6.3	.004
Pennsylvania.....	1,577,120	75,147	4.8	.008
Wisconsin.....	352,313	9,000	2.6	.003

¹ Data not available: Louisiana, Nebraska, New Jersey, Utah. Conducted under central administration: Maine (see Table 6, p. 36). Under 3 separate divisions: Minnesota. Under State university: Iowa, Nevada, North Dakota. No laboratory: Wyoming.

² Includes \$132,275 for division of biological laboratories and \$50,000 for division of water and sewage laboratories.

³ Includes \$39,792 for the bureau of bacteriology and \$15,078 for the bureau of chemistry.

⁴ Does not include \$18,000 for Lexington laboratory.

⁵ Amount for cooperative and branch laboratories only.

TABLE 40.—*Branch laboratories, 1915, 1925, and 1930*

State	1915 ¹		1925		1930	
	Number	Financed by—	Number	Financed by—	Number	Financed by—
Alabama.....	3	State department of health *	5	State and local agencies.....	6	State and local agencies.
California.....	5	State department of health.....	5	Cities.....	8	Cities.
Connecticut.....	1	State department of health.....	4	State department of health.....	4	State department of health.
Florida.....	2	University.....	1	University.....	1	University.
Idaho.....	2	Chicago and Mount Vernon.....	8	State department of health and cities.....	7	State department of health and cities.
Illinois.....	7	Municipalities *.....	18	Self-supporting.....	20	Self-supporting.
Iowa.....			1	University (special appropriation).....	1	University (special appropriation).
Kentucky.....			3	Cities and State health department.....	5	3 by cities and State health departments.
Louisiana.....						2 by parish health departments.
Maine.....			1	Special appropriation.....	1	Special appropriation.
Maryland.....			5	State department of health.....	4	State department of health and local organizations.
Massachusetts.....			1	do.....	1	State department of health.
Michigan.....	1	Municipality (Houghton).....	2	do.....	2	Do.
Minnesota.....	2	Duluth and Mankato *.....	1	Duluth, St. Louis County, and the State department of health.....	1	Duluth, St. Louis County, and the State department of health.
Mississippi.....			8	Full-time county health units.....	5	Full-time county health units.
Nebraska.....				State department of health.....	1	State appropriation.
New Hampshire.....	1	State department of health.....	1	do. ⁴	1	State pays \$600 to pathologist.
New York.....	2	Bismarck and Minot.....	3	University.....	1	State department of health.
North Dakota.....			4	1 by State department of health; 3 by special appropriation.....	3	University.
Pennsylvania.....				Municipalities.....	3	State department of health.
South Dakota.....			2	State department of health and local laboratory.....		
Tennessee.....			2	State department of health and local laboratory.....	4	State department of health and local laboratory.
Virginia.....			2	State and local funds.....	3	State and local funds.
Wisconsin.....			7	State department of health and cities.....	6	State department of health and cities.
Total.....	24		85		88	

¹ Taken from Doctor Chapin's Report on State Public Health Work.² In addition there were 9 municipal laboratories.³ State board of health must approve of bacteriologist and furnish media and stains.⁴ Equipped and supervised by the State board of health.⁵ In addition there were 10 county and 23 municipal laboratories under the supervision of the State.

The staff of the branch laboratories is usually small; the work is limited to simple diagnostic and emergency procedures. Specimens for examination which require special or elaborate equipment, as Wassermann tests, water chemistry, and analysis of food and drugs, are generally sent to the central laboratory. New York has encouraged the establishment of local laboratories independently operated mainly with local funds, but has required them to conform to standards fixed by the State laboratory. In Wisconsin six branch laboratories are financed jointly by the local communities and by the State department of health, which appropriates \$1,000 to each branch laboratory; the director is appointed by the State board of health. In Mississippi the five branch laboratories, i. e., county laboratories, are conducted and financed as an activity of the county health organizations.

SPECIAL LABORATORY SERVICE

The State health departments of the 20 States shown in Table 41 operated 42 special laboratories in 1930. The tabulation indicates for each State the kind of service performed and the bureau or division having charge of the work. Sixteen State departments of health operate 26 laboratories in connection with sanitary engineering. Connecticut conducts an industrial hygiene laboratory in connection with the division of occupational diseases. Louisiana, New Jersey, and South Carolina maintain laboratory service for oyster investigations; Pennsylvania has three motor field laboratories for use in the examination of roadside water supplies, a traveling laboratory for milk analyses, and five mobile laboratories for the study of stream pollution. Tennessee has a laboratory for testing sand for filters. It will be noted also that six States have facilities for examining food and drugs.

TABLE 41.—*Special laboratories maintained by the State departments of health in 1930*

California.....	Food and drug laboratory—Bureau of food and drugs. Water and sewage laboratory—Bureau of sanitary engineering.
Colorado.....	Chemical analyses of food and drugs made at the university. Laboratory for water analyses—Division of sanitary engineering.
Connecticut.....	Industrial hygiene laboratory—Division of occupational diseases.
Florida.....	Laboratory for water analyses—Bureau of sanitary engineering.
Georgia.....	Laboratory for water analyses—Division of sanitary engineering.
Idaho.....	Chemical laboratory—Bureau of sanitary engineering.

Illinois.....	Water and sewage laboratory—Division of sanitary engineering. Mobile water laboratory—Division of sanitary engineering. Mobile milk laboratory—Division of sanitary engineering.
Indiana.....	Water and sewage laboratory—Division of sanitary engineering. Food and drug laboratory—Division of food and drugs. Dairy products laboratory—Division of food and drugs.
Kansas.....	Water and sewage laboratory—Division of sanitation. Drug laboratory—Division of food and drugs. Food laboratory—Division of food and drugs. Milk laboratories—Division of food and drugs.
Louisiana.....	Chemical laboratory—Bureau of food and drugs. Boat laboratory for oyster sanitation—Bureau of sanitary engineering.
Maine.....	Laboratory for water analyses—Division of sanitary engineering.
Massachusetts.....	Diagnostic laboratory—Division of communicable diseases. Cancer laboratory—Division of adult hygiene. Food and drug laboratory—Division of food and drugs.
Minnesota.....	Water and sewage laboratory—Division of sanitation. Milk laboratories—Division of sanitation. Wassermann laboratory—Division of preventable diseases.
Montana.....	Food and drug laboratory—Division of food and drugs. Water and sewage laboratory—Division of water and sewage.
New Hampshire.....	Chemical laboratory—Division of chemistry and sanitation.
New Jersey.....	Laboratory for oyster investigation—Bureau of chemistry.
Pennsylvania.....	Three motorized laboratories for water analyses and epidemiological work—Bureau of engineering. Five laboratories for study of stream pollution—Bureau of engineering. Mobile milk laboratory—Bureau of milk control.
Rhode Island.....	Laboratory for water analyses—Division of chemistry and sanitary engineering.
South Carolina.....	Boat laboratory for examination of oysters—State hygienic laboratory.
Tennessee.....	Laboratory for testing sand—Division of sanitary engineering.

A special laboratory is maintained by the health department of Minnesota for Wassermann examinations, and in Massachusetts a cancer laboratory is conducted by the division of adult hygiene.

THE SCOPE OF THE DIAGNOSTIC LABORATORY SERVICE

The public health laboratory was established primarily for the diagnosis of communicable diseases, and this continues to be one of its major functions. However, the scope of the work has grown to include the routine examination, both bacteriological and chemical, of public water supplies, sewage, and milk; the manufacture of biological products; and numerous other activities. The diagnostic work of the State laboratories for 1929 is tabulated by States and by

subjects in Table 42. Analysis shows that the practice with regard to the more important diagnostic procedures is not uniform among the States.

FEEES FOR LABORATORY SERVICE

Effort has been made by the State departments of health to supply all service free. There are a few exceptions, some of which apply to laboratory activities. Of the 47 States which provide diagnostic laboratory service, 35 make no charges, 6 charge for analyses of private water supplies, and 10 make charges for special examinations. The States are classified in Table 43 according to the practice with reference to fees for laboratory service.

TABLE 42.—*Diagnostic activities during 1929*
NUMBER OF EXAMINATIONS MADE

State	Diphtheria		Typhoid					Venereal diseases				Tuber- culosis sputum
	Exami- nations	Viru- lence tests	Blood	Feces	Urine	Widals	Gono- coccus	Wassermann		Kahn tests	Colloidal gold	
								Blood tests	Spinal fluid			
Alabama.....	15,185	155	1,144	3,233	2,467	3,377	10,136	60,790	284	65,748		7,435
Arizona.....	1,502	12	12	85	891	993	1,662	16,091	76	4,647		1,098
Arkansas.....	3,370	53	348	5	5	571	2,029	31,656		14,734		1,663
California.....	5,170	4	24	4,338	3,234	1,878	2,690	30,463	763	14,134	663	2,283
Colorado.....	28,921	627	24	12	8	219	2,775	2,904	24	2,904		801
Connecticut.....	28,502	6		400	93	9,274	9,206	36,481	287	56,183		4,312
Delaware.....	15,560	5		467		2,876	1,792	11,443		8,661		2,368
Florida.....	549	43	1,942	16	6	1,764	1,675	11,443				426
Georgia.....	11,075	610	44	16	77	6,645	56,346	32,638		66,136	3,573	1,126
Idaho.....	14,353	(1)	341	(1)	(1)	6,680	3,404	41,933	1,266	41,933	(1)	4,200
Illinois.....	5,766	12	2,444	117	42	1,129	3,347	11,785	241	10,341	173	4,271
Indiana.....	11,673	2	3	299		282	3,048	(1)	(1)		(1)	1,131
Iowa.....	4,187	418	279	1,119	1,120	748	887	(1)	(1)			1,529
Kansas.....	1,894	66	1,088	81	107	1,006	735	6,691	160	6,957	37	1,810
Kentucky.....	9,114	16	189	872	107	999	4,031	14,261	190	6,010	190	1,143
Louisiana.....	15,841	297	42	1,786	1,787	17,628	6,161	81,156	3,751	3,631	85	4,060
Maine.....	49,687	297	2,360	1,429	735	1,762	9,573	35		123,234		14,253
Massachusetts.....	33,031	289		1,080		1,941	29,833		1,225			6,717
Michigan.....	2,672	3	340	936	767	7,720	8,960	36,598				1,506
Minnesota.....	2,089	1	43	498	36	3,388	11,108	11,263	101	9,120		1,520
Mississippi.....	1,046	2	26	288	12	1,991	1,274	12,340	255		150	2,280
Missouri.....	2,532	1	14	30	11	894	4,777		574			724
Montana.....	Not recorded					501						498
Nebraska.....	1,073	2	5	42	11	644	1,280	4,641	30	6		1,128
Nevada.....	11,583	30	(1)	2,712	(1)	2,472	5,227	27,492		4,582		6,736
New Hampshire.....	2,854	(1)	7,248	1,078	(1)	3,843	15,289	3,241	30	3,184		204
New Jersey.....	29,223	1,369	383	1,059	639	3,843	15,931	173,402	10,165			14,685
New Mexico.....	5,467	5	315	51	51	1,548	1,978	57,095	436			2,514
New York.....	3,580	80	(1)	265	(1)	1,336	2,634	5,645	63			1,196
North Carolina.....	11,745	5	29	129	14	2,096	10,914	77,331	2,060	77,275	105	5,717
North Dakota.....	11,787	5	8	30	14	610	2,008	20,983		14,591		1,117
Ohio.....	5,342	5				488	4,898			7,861	149	1,879
Oklahoma.....												
Oregon.....												

State	Rabies— number heads examined	Feces— number of exam- inations	Malaria blood smears	Urinal- yses	Blood counts	Water analyses		Milk analyses		Miscel- laneous	Total number
						Bacte- rial	Chem- ical	Bacte- rial	Chem- ical		
Pennsylvania.....	2,891	20	961	1,357	1,157	961	12,972	52,528	6,459	(1)	8,073
Rhode Island.....	2,158	5	3	20	2	217	1,740	6,459	122	—	1,459
South Carolina.....	700	19	19	482	378	3,889	3,999	29,847	315	—	1,135
South Dakota.....	1,570	4	4	15	1	519	702	6,430	93	4	894
Tennessee.....	3,516	1,516	426	607	205	2,386	1,724	12,094	82	—	3,718
Texas.....	303	—	—	622	—	1,188	2,243	4,575	20	—	265
Utah.....	1,966	—	—	345	—	1,542	546	7,310	—	—	265
Vermont.....	2,423	—	—	86	—	1,362	1,362	36,885	3,808	—	2,775
Virginia.....	11,036	95	1,655	835	32	4,137	3,959	17,840	3,555	—	5,538
Washington.....	2,461	9	408	203	203	1,224	2,684	—	2,012	—	1,888
West Virginia.....	556	—	—	160	—	3,000	3,189	—	68	58	1,957
Wisconsin.....	19,653	140	(1)	(1)	115	1,484	15,403	5,444	—	—	12,777
Wyoming.....	No State public health laboratory	—	—	—	—	—	—	—	—	—	—
State	Rabies— number heads examined	Feces— number of exam- inations	Malaria blood smears	Urinal- yses	Blood counts	Water analyses		Milk analyses		Miscel- laneous	Total number
						Bacte- rial	Chem- ical	Bacte- rial	Chem- ical		
Alabama.....	1,136	45,036	12,046	28,938	5,564	11,363	—	25,944	84,133	4,312	262,201
Arizona.....	19	—	—	—	—	1,048	—	53	53	4,722	3,409
Arkansas.....	128	126	1,759	1,165	—	2,064	—	37	—	536	26,210
California.....	131	22,866	204	—	—	795	513	(9)	(9)	1,312	72,661
Colorado.....	35	100	17	7	784	410	—	4,363	4,167	9,407	14,377
Connecticut.....	116	25	20	9	—	5,897	—	1,877	—	105	118,346
Delaware.....	7	—	—	3,821	22	1,084	—	6,264	4,430	6,031	15,066
Florida.....	438	30,181	9,904	70	53	2,196	—	1,942	—	834	156,419
Georgia.....	656	11,172	3,228	4	—	8,458	—	—	—	—	70,986
Idaho.....	27	7	1	—	—	1,517	86	795	1,275	61	73,888
Illinois.....	573	(1)	—	(1)	(1)	6,356	4,958	4,776	6,654	29	128,269
Indiana.....	966	(1)	48	(1)	(1)	5,195	7,794	3,937	—	2,076	115,697
Iowa.....	206	117	(1)	—	—	5,454	(9)	—	—	186	113,573
Kansas.....	—	311	19	60	19	11,916	749	—	—	24	81,240
Kentucky.....	288	2,862	135	1,755	64	3,123	—	9	—	2,755	14,123
Louisiana.....	105	851	1,225	10,220	81	1,588	3,123	51	242	14	31,020
Maine.....	4	57	—	1,039	132	11,006	4,372	28	—	1,340	10 34,835

¹ Under miscellaneous.

² Made at the Lexington laboratory.

³ Includes all examinations for venereal diseases except those for gonorrhea.

⁴ Also 1,668 agglutination tests.

⁵ This work is done in the psychiatric laboratory.

⁶ Under the State department of agriculture.

⁷ Included under typhoid feces examinations.

⁸ Under miscellaneous.

⁹ Chemical examinations made on most bacteriological specimens.

¹⁰ Includes 15,378 water examinations made in the laboratory of the division of sanitary engineering.

TABLE 42.—*Diagnostic activities during 1929—Continued*

NUMBER OF EXAMINATIONS MADE—Continued

State	Rabies— number heads examined	Feces— number of exam- inations	Malaria blood smears	Urinal- yses	Blood counts	Water analyses		Milk analyses		Miscel- laneous	Total number
						Bacte- rial	Chem- ical	Bacte- rial	Chem- ical		
Maryland.....	74	32	64	2,478	78	5,456	358	4,187	4,775	8,654	84,682
Massachusetts.....	455		42	7,795	2,832	8,128	11,318	1,197	10,623	18,540	153,844
Michigan.....		1,616				7,396	1,597	24,813		18,112	286,309
Minnesota.....	35		2			11,305	1,606	13,222	1,086	1,660	120,980
Mississippi.....	281	9,425	7,931	6,368	(¹)	1,721		2,136	2,136	3,075	77,281
Missouri.....	176	(¹)	7,486			9,582	4	2			41,987
Montana.....		312		152	66	3,518	224				21,125
Nebraska.....	44					1,458	10				10,450
Nevada.....	Not recorded	6		171	20						9,068
New Hampshire.....	7		4			4,290		670	4,937	6,731	13,77,840
New Jersey.....	243	(¹)	75			1,161		(¹)	(¹)	1,553	14,087
New Mexico.....	21	(¹)	(¹)	987	310	6,048	7,690	348		14,000	285,883
New York.....	379	185	74			3,509	3,509			2,752	84,683
North Carolina.....	962	1,781	831	225	(¹)	2,019	30	903	958	560	22,466
North Dakota.....	3	51		183	20					349	122,263
Ohio.....	423	502	53	153	(¹)	2,603	232	36		673	31,105
Oklahoma.....	428	39	983	361	20	4,184		167		1,010	25,067
Oregon.....	30	14	3	28	7	12,167	841	210	210	253	96,250
Pennsylvania.....	(¹)	252	10	4,006	226	2,806	1,528	5	24	4,674	60,369
Rhode Island.....	157	116	34	26,986	510	1,355		768	768	1,002	73,569
South Carolina.....	435	1,363	762	420		1,470				2,907	16,120
South Dakota.....	3	5		54	27	4,289	600	1,402	1,344	25	78,486
Tennessee.....	981	22,154	1,344	2,283	242	3,462	66	1,174	21	8,795	13,207
Texas.....	2,425	622	(¹)	120	42	2,291				2,244	45,065
Utah.....	17	30	5	(¹)	(¹)	7,295	6	4,735	1,443	1,649	16,839
Vermont.....	4			337		2,198		187	62	7,256	88,811
Virginia.....	217	3,350	366	19	4	6,668		188		3,513	38,573
Washington.....	15	2	6	146	9	9,951	106	2,000		30,370	29,675
West Virginia.....	67	372									156,673
Wisconsin.....	205	540									
Wyoming.....	No State public health laboratory										

* Under miscellaneous.

** In addition, physical 411, biological 166, sewage examinations 311.

** In addition, physical 1,026.

** In addition, 3,466 samples of shellfish and water were examined on the laboratory boat.

** Under the laboratory in the bureau of animal industry.

TABLE 43.—*Fees charged for examinations*

No fees charged for any laboratory service		Water analyses only	Special examinations ¹
Alabama. Arizona. Arkansas. California. Colorado. Connecticut. Delaware. Florida. Georgia. Idaho. Illinois. Indiana. Kentucky. Louisiana. Maryland. Massachusetts. Minnesota. Mississippi.	Montana. Nebraska. New Hampshire. New Mexico. New York. Ohio. Oklahoma. Oregon. Pennsylvania. Rhode Island. South Carolina. Tennessee. Texas. Utah. Virginia. Washington. Wisconsin.	Kansas. New Jersey (private supplies only).	Iowa. Maine. Michigan. Missouri. ² Nevada. North Carolina. ³ North Dakota. ³ South Dakota. ³ Vermont. West Virginia. ³

¹ Such as blood tests, urinalyses, virulence tests, autogenous vaccines, etc.² Private water supplies also.³ Commercial water analyses also.

The fees collected for examinations made by the laboratory are allocated to the laboratory in six States (Missouri, Nevada, North Carolina, North Dakota, South Dakota, and West Virginia) and paid to the State treasurer in four States (Indiana, Maine, Michigan, and Vermont).

MANUFACTURE OR PURCHASE OF BIOLOGICAL PRODUCTS AND THEIR DISTRIBUTION

The use of biological products in the diagnosis, prevention, and treatment of disease has grown at a phenomenal rate during the past 15 years. Large private laboratories have been established for the manufacture and sale of such products. A large number of State and local health departments are not equipped to manufacture the supplies needed and must therefore purchase them. Other States make all or some of the products in their laboratories. Table 44 shows the practice in each State and gives the quantity distributed in 1929.

TABLE 44.—*Manufacture or purchase of biological products and their distribution in 1929*

State	Amount distributed						
	Diphtheria			Smallpox vaccine	Typhoid vaccine	Rabies treatments	Silver nitrate ampules
	Antitoxin ¹	Toxin-antitoxin ¹	Schick outfits				
Alabama.....	None issued.	P ² 137,000	M 5,235	P 66,896	P 812,500	M 1,525	P 20,313
Arizona.....	None issued.	P	P	P	P	P	P
Arkansas.....	None issued.	P	P	P	P	P	P
California.....	None issued.	P	P	P	P	P	P
Colorado.....	None issued.	P	P	P	P	P	P
Connecticut.....	None issued.	P	P	P	P	P	P
Delaware.....	(¹) 22,300	(¹) 95,017	(¹) 34,650	(¹) 30,930	(¹) 75,190	(¹) 520	(¹) 16,300
Florida.....	30,696	104,768	11,400	27,160	317,502	1,474	41,883
Georgia.....	None issued.	P	P	P	P	P	P
Idaho.....	352,922,000	275,855	12,450	87,290	27,550	317	114,640
Illinois.....	1,686,500	P	P	P	P	P	P
Indiana.....	1,686,500	P	P	P	P	P	P
Iowa.....	6,768,000	71,141	820	19,663	8,307	6,725	48,000
Kansas.....	2,806,000	75,580	50	14,155	23,340	(¹) 32	3,408
Kentucky.....	61,767	1,440	1,440	42,928	110,098	120	19,438
Louisiana.....	1,900,000	160,000	700	64,000	375,240	P	P
Maine.....	None issued.	P	P	P	P	P	P
Maryland.....	1,058,000	33,324	4,500	34,000	15,819	279	12,000
Massachusetts.....	313,736	354,845	6,419	434,621	84,205	M	61,736
Michigan.....	19,460	339,520	5,579	117,630	30,242	M	84,778
Minnesota.....	40,344	60,839	7,850	P	24,000	M	36,672
Mississippi.....	None issued.	P	P	P	418,900	M	50,000
Missouri.....	50	47,091	2,000	5,648	4,869	177	11,895
Montana.....	None issued.	P	P	P	P	P	4,018
Nebraska.....	None issued.	P	P	P	P	P	P
Nevada.....	None issued.	P	P	P	P	P	P
New Hampshire.....	(¹) 40,690	(¹) 430	(¹) 430	386	570	1	12,000
New Jersey.....	(¹) 6,355,000	(¹) 872,630	(¹) 1,008	(¹) 320,980	(¹) 21,285	(¹) 2,208	(¹) 40,964
New Mexico.....	145,364,000	404,554	56,000	P	646,861	1,079	98,934
New York.....	None issued.	P	P	P	P	P	P
North Carolina.....	None issued.	P	P	P	P	P	P
North Dakota.....	(¹) 2,513	(¹) 56,550	(¹) 2,750	(¹) 44,510	20,595	(¹) 301	95,609
Ohio.....	Amounts not recorded.	P	P	P	P	P	1,500
Oklahoma.....	321,105	432,416	62,150	11,645	9,060	60	37,668
Oregon.....	16,954	P	P	P	P	P	4,320
Pennsylvania.....	15,000	160,000	2,500	123,000	100,000	(¹¹)	1,572
Rhode Island.....	P	P	P	P	P	P	P
South Carolina.....	P	P	P	P	P	P	P
South Dakota.....	P	P	P	P	P	P	P

Tennessee.....	None issued except rabies vaccine.	186,750	P		1,300	P	703,895	M	644	M	21,792	M
Texas.....			P			P						
Utah.....			P		(¹)	P	(¹)	M				
Virginia.....	5,520	(¹)	P			P	100	P			(¹)	P
Washington.....	7,617	56,640	P		34,902	P	13 11,781	P	148	P	65,000	M
West Virginia.....	95	4,920	P		3,105	P	8,573	M	1	P	(¹)	P
Wisconsin.....		215,790	P			P	149,110	M			9,562	M
Wyoming.....	(¹)	(¹)	P		(¹)	P	(¹)	M	(¹)	P	(¹)	M
	None issued.											

¹ Diphtheria antitoxin recorded on a basis of 1,000 units; toxin-antitoxin and typhoid vaccine on a basis of 1 cc. doses; smallpox vaccine by number of capillary tubes.

² P and M indicate whether the biological was purchased or manufactured.

³ Amount not recorded.

⁴ Tests.

⁵ Local boards of health purchase rabies treatments.

⁶ Ampules to be manufactured by the laboratory after Mar. 1, 1930.

⁷ 10,098 bottles of 3 cc. each

⁸ In addition, 10,326 packages of 10,000 units and 12,005 packages of 20,000 units were distributed.

⁹ Smallpox vaccine to be manufactured after July 1, 1929.

¹⁰ Also purchased.

¹¹ Furnished by cities and towns.

¹² Packages.

¹³ Immunizations.

The practice of the State health authorities with regard to the distribution of biological products varies widely. In 23 States the distribution is administered by the laboratory, in 5 States by the bureau of communicable diseases, in 6 States by the central office, and in 7, no products are distributed. The States are grouped in Table 45 to show if distribution is provided for, and, if so, by which division of the State department of health.

TABLE 45.—*Biological products distributed by—*

Public health laboratory	Bureau or division of communicable diseases	Central office	Exceptions	None issued
Alabama. Arkansas. ¹ California. Delaware. Florida. Georgia. Illinois. Indiana. Louisiana. Massachusetts. Michigan. Mississippi. Missouri. New Hampshire. New Jersey. New Mexico. New York. North Carolina. ² Oklahoma. Oregon. Texas. ⁴ Utah. Wisconsin.	Kansas. Ohio. Tennessee. Vermont. Washington.	Iowa. Nevada. ³ Rhode Island. South Carolina. Virginia. West Virginia.	Connecticut—Division of supplies. Kentucky—Bureaus of bacteriology and epidemiology. Maryland—Division of personnel and accounts. Minnesota—Divisions of administration and preventable diseases. Montana—Division of child welfare. Pennsylvania—Division of supplies and biological products. South Dakota—Division of records and accounts.	Arizona. Colorado. Idaho. Maine. Nebraska. North Dakota. Wyoming.

¹ Typhoid vaccine only.

² Diphtheria antitoxin only.

³ Silver nitrate ampules are distributed by the bureau of maternity and infancy.

⁴ Rabies treatments only.

Table 46 shows what biologicals are distributed free of charge by the various States.

MISCELLANEOUS ACTIVITIES

In addition to routine diagnostic work and the manufacture of biologic products, there are miscellaneous activities undertaken by certain State health laboratories. The Kentucky laboratory at Louisville conducts a school for laboratory technicians and in Michigan arrangements have been made whereby students attending the university may take work in the State laboratory. The Connecticut State laboratory is charged with the testing of all clinical thermometers.

TABLE 46.—*Distribution of biological products*

All free	All free except rabies treatments	All free except rabies treatments and smallpox vaccine	All free except diphtheria antitoxin	All free except diphtheria toxin-antitoxin
Delaware Illinois. Louisiana. ¹ Maryland. Michigan.	Connecticut. Florida. Kansas Massachusetts. Pennsylvania.	Minnesota. Vermont.	North Carolina. ¹	South Carolina.
All free except smallpox vaccine	All issued at cost	None issued	Diphtheria antitoxin free	Diphtheria toxin-antitoxin free
New York.	Iowa. New Mexico. Oregon.	Arizona. Colorado. Idaho. Maine. Nebraska. North Dakota. Wyoming.	Alabama. ² Indiana. ² Montana. Nevada. New Hampshire. Rhode Island.	Alabama. New Hampshire. Tennessee. West Virginia.
Smallpox vaccine free	Typhoid vaccine free	Rabies treatments free	Silver nitrate ampules free	
Oklahoma. Utah. Tennessee.	Alabama. Arkansas. ² California. Georgia. Kentucky. Mississippi. Ohio. Oklahoma. Rhode Island. Tennessee. Utah. Washington. ² West Virginia. Wisconsin.	Alabama. ² Georgia. Indiana. ² Kentucky. Mississippi. Texas. ²	Alabama. California. Georgia. Kentucky. Mississippi. Missouri. ² Montana. New Jersey. ² Ohio. Oklahoma. Rhode Island. South Dakota. ² Tennessee. Virginia. ² West Virginia. Wisconsin.	

¹ Rabies treatments free for indigents only.² For indigents only.³ The only biological issued by the health department.

9. SANITARY ENGINEERING

The shift of population from rural to urban conditions, and the movement from city to country for recreation has steadily increased the problems of environmental sanitation.

The safeguarding of water and milk supplies and the protection of streams, lakes, and harbors against pollution have given the engineer an important rôle in the field of public health. Moreover, his services are required in measures directed to soil drainage, mosquito control, disposal of industrial and other wastes, the sanitation of homes and bathing places, the abatement of nuisances, and many other activities concerned with the protection of public health.

The rapidity with which sanitary engineering has grown as a basic activity of State departments of health is shown in Figure 19 and Table 47. On the outline map the 20 States shown by single hatch shading had engineering divisions or employed full-time sanitary engineers in

A map of the contiguous United States where each state is filled with one of two hatching patterns. A legend at the bottom right explains the patterns: a cross-hatch pattern for states with a division or an engineer in 1916, and a diagonal hatch pattern for states that have added a division since 1915. The states with cross-hatching include Washington, Oregon, California, Nevada, Idaho, Utah, Arizona, New Mexico, Colorado, Wyoming, Montana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Minnesota, Iowa, Missouri, Arkansas, Louisiana, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, Maryland, Delaware, Virginia, West Virginia, Kentucky, Tennessee, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia, Maryland, Delaware, Pennsylvania, New Jersey, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine, New York, New Jersey, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine. The states with diagonal hatching are Alaska and Hawaii.

FIGURE 19.—Bureaus or divisions of sanitary engineering, 1930

four States, Arizona, Nebraska, Nevada, and Wyoming, are without the services of a sanitary engineer. Vermont utilizes the services of the professor of engineering in the State university on a per diem basis.

ORGANIZATION

Table 47 gives for each State the name of the State health department having responsibility for sanitary engineering and also compares for the years 1915, 1925, and 1930 the total appropriations for each division, the number of persons engaged in engineering activities, and the salary of the director. The consistent growth in the work gives evidence as to its value.

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TABLE 47.—Sanitary engineering, 1915, 1925, and 1930

State	Bureau or division in charge in 1930	Appropriation for sanitary engineering			Personnel			Salary of director		
		1915	1925	1930	1915 ¹	1925	1930	1915 ¹	1925	1930
Alabama.....	Bureau of sanitary engineering.....	\$5,500	\$24,487	\$62,775	1	7	16	\$1,500	\$4,200	\$4,500
Arizona.....	State laboratory.....		(²)	(²)		(²)	(²)		(²)	(²)
Arkansas.....	Bureau of sanitary engineering and inspection.....		13,700	23,080	1	5	5		3,000	4,000
California.....	Division of sanitation.....	30,000	23,969	28,725	3	8	10	4,000	4,000	4,200
Colorado.....	Division of sanitary engineering.....		8,066	5,550		4	4		3,000	3,000
Connecticut.....	Bureau of sanitary engineering.....	10,000	20,375	31,187	1	3	3	\$2,000	3,000	3,548
Delaware.....	Bureau of engineering.....		5,000	3,000		4	8		3,000	3,180
Florida.....	Bureau of sanitary engineering.....		49,414	33,800		13	11		3,500	3,600
Georgia.....	Division of sanitary engineering.....		11,854	14,200		4	4		3,000	3,000
Idaho.....	Bureau of sanitary engineering.....		4,000	3,000		1	1		3,000	3,000
Illinois.....	Division of sanitary engineering.....		68,586	70,960	20	20	24	3,500	4,500	4,800
Indiana.....	do.....	5,015	10,000	30,000	4	5	11		3,000	3,300
Iowa.....	Division of sanitary engineering and housing.....	5,000	13,900	22,525	3	4	5		2,500	3,600
Kansas.....	Division of sanitation.....	9,045	8,300	23,106	8	4	4		1,000	2,700
Kentucky.....	Bureau of sanitary engineering.....	6,000	10,769	6,169	5	3	2	1,500	3,600	3,600
Louisiana.....	do.....		(²)	(²)	1	1	2		3,600	3,600
Maine.....	Division of sanitary engineering.....		(²)	(²)		5	9		2,500	3,800
Maryland.....	Bureau of sanitary engineering.....	23,066	38,483	51,859	10	14	14		2,500	3,800
Massachusetts.....	Division of sanitary engineering.....	28,700	84,350	93,000	16	20	24	5,000	6,000	6,500
Michigan.....	Bureau of engineering.....		25,703	24,600	6	9	9	3,000	4,500	5,000
Minnesota.....	Division of sanitation.....		33,248	33,248	7	13	18		4,500	4,500
Mississippi.....	Bureau of sanitary engineering.....	\$14,000	26,387	10,800		4	4		3,900	4,200
Missouri.....	Division of sanitary engineering.....	3,200	15,000	25,000		3	7		3,000	3,600
Montana.....	Division of water and sewage.....		6,470	6,781	1	3	2		3,000	2,600
Nebraska.....	Central administration.....		(²)	(²)	1	(²)	(²)		(²)	(²)
Nevada.....	No activities.....									
New Hampshire.....	Division of chemistry and sanitation.....		(²)	(²)	3	6	2	\$2,000	3,250	2,300
New Jersey.....	Bureau of sanitary engineering.....		(²)	(²)	11	9	15	3,000	4,200	5,000
New Mexico.....	Division of sanitary engineering and sanitation.....	(²)	4,108	4,700		4	4		2,400	3,000
New York.....	Division of sanitation.....		45,669	95,294	11	14	27	4,500	5,000	5,500
North Carolina.....	Bureau of sanitary engineering and inspection.....	10,030	62,001	87,820	41	21	31		4,000	4,600
North Dakota.....	Bureau of sanitary engineering.....		64,389	66,940	7	18	16		5,000	5,000
Ohio.....	Division of sanitary engineering.....		4,800	3,000		1	1		3,000	3,000
Oklahoma.....	Bureau of sanitary engineering.....		848	3,700		1	1		2,400	2,400
Oregon.....	Division of sanitary engineering.....		145,000	211,340	40	47	65		7,000	7,500
Pennsylvania.....	Bureau of engineering.....		17,500	21,850	1	7	9	6,000	4,000	4,500
Rhode Island.....	Division of chemistry and sanitary engineering.....		16,245	13,850	1	8	4	\$2,200	(¹)	3,000
South Carolina.....	Bureau of sanitary engineering.....		4,739	7,758		2	2		3,000	3,600
South Dakota.....	Division of sanitary engineering.....		15,100	27,250		4	5		3,750	3,750
Tennessee.....	do.....		28,840	33,600	1	4	10		3,600	3,600
Texas.....	Bureau of sanitary engineering.....									

Utah.....	do.....	(7)	(7)	42 41	42 41	2,802 (11)	2,400 (11)
Vermont.....	Division of sanitary engineering.....	16,200	22,085	5	6	4,000	4,500
Virginia.....	Bureau of sanitary engineering.....	6,330	8,736	2	3	4,800	4,200
Washington.....	Division of sanitation.....	2,400	16,200	6	4	3,400	3,700
West Virginia.....	Division of sanitary engineering.....	12,300	29,000	7	14	4,500	4,500
Wisconsin.....	Bureau of sanitary engineering.....	14,000	(9)	(9)	(9)	(9)	(9)
Wyoming.....	Central administration.....	-	-	-	-	-	-

- 1 Taken from Doctor Chapin's Report on State Public Health Work.
 2 Included under public health laboratory service. (See Table 38, p. 90.)
 3 Director of the laboratory is in charge.
 4 Officials included whose time is devoted to more than 1 activity.
 5 Chemist.
 6 Total salary is \$3,000, balance being paid by the university as director of water and sewage laboratory and associate professor of sanitary engineering.
 7 No specific allotments made by bureaus or divisions.
 8 Under central administration. (See Table 6, p. 36.)
 9 Laboratory budget included.
 10 Sanitary water board included.
 11 Lent by the U. S. Public Health Service.
 12 \$10 per diem and expenses.

The engineering activities as a rule are delegated to the State department of health. In Kansas there is a cooperative arrangement between the health department and the university. In New Hampshire the activity is combined with the work of the food and drug division.

In comparing the amounts appropriated for sanitary engineering activities in 1925 with those in 1930, it will be noted that 28 States have increased their appropriations. An initial appropriation was made for sanitary engineering in North Dakota in 1928.

A comparison of the salary of the chief sanitary engineer in 1925 with that for 1930, shows that 28 States have increased the salary of the engineer in amounts ranging from \$100 to \$1,700. The arithmetic average for the salary of the sanitary engineer is \$3,960 as based on the 1930 amounts for 43 States.

The percentage of the total State health appropriation expended for sanitary engineering activities for each of 38 States has determined the order in which the States are listed in Table 48. It will be noted that 14 of the 38 States allot between 5 and 10 per cent and 13 of the States allot between 10 and 15 per cent of the total State appropriation to sanitary engineering. The per capita amount is listed in the last column.

ACTIVITIES

The scope of engineering activities is far from uniform in different States. It may be limited to the protection of water supplies or may extend to the entire field of environmental sanitation. Some indication as to the scope of the work will be reflected by the size of the staff and the amount of the expenditures.

TABLE 48.—States arranged according to the percentage of total State legislative appropriation for health work allotted to sanitary engineering, 1930 ¹

State	State legis- lative ap- propriation	State legis- lative ap- propriation for sanitary engineer- ing	Percent- age	Per capita
Iowa.....	\$18,525	\$22,525	27.6	.009
Arkansas.....	86,400	23,080	26.7	.012
Kansas.....	108,456	25,106	23.1	.013
North Carolina.....	491,470	87,320	17.8	.028
Washington.....	50,000	8,736	17.5	.006
Rhode Island.....	129,498	21,950	17.0	.032
Texas.....	213,520	33,600	15.7	.006
New Mexico.....	34,500	700	13.6	.011
Pennsylvania.....	1,577,120	211,340	13.4	.022
Missouri.....	188,750	25,000	13.2	.007
Florida.....	267,965	33,800	12.6	.023
Maryland.....	429,692	51,859	12.1	.032
Minnesota.....	275,300	33,248	12.1	.013
West Virginia.....	140,800	16,200	11.5	.009
Indiana.....	266,500	30,000	11.3	.009
Massachusetts.....	529,995	93,000	11.2	.022
Montana.....	60,400	6,781	11.2	.013
Illinois.....	642,261	70,960	11.0	.009

¹ Data not available: Louisiana, Nebraska, New Jersey, Utah. Under the State laboratory: Arizona, New Hampshire. (See Table 38, p. 90.) Under central administration: Maine, Vermont, Wyoming. (See Table 6, p. 36.) No activities: Nevada.

TABLE 48.—*States arranged according to the percentage of total State legislative appropriation for health work allotted to sanitary engineering, 1930*—Continued

State	State legis- lative ap- propriation	State legis- lative ap- propriation for sanitary engineer- ing	Percent- age	Per capita
Ohio.....	\$652,823	\$66,940	10.3	.010
North Dakota.....	33,950	3,425	10.0	.005
Alabama.....	635,813	62,775	9.9	.024
Connecticut.....	324,309	31,187	9.6	.019
Georgia.....	165,000	14,200	8.6	.005
Colorado.....	65,550	5,550	8.5	.005
Wisconsin.....	352,313	29,000	8.2	.010
Idaho.....	37,750	3,000	7.9	.007
South Carolina.....	171,563	13,390	7.8	.008
California.....	386,550	28,725	7.4	.005
Oregon.....	50,512	3,700	7.3	.004
Tennessee.....	383,070	25,650	6.7	.010
South Dakota.....	51,058	3,350	6.6	.005
Virginia.....	352,645	22,085	6.3	.009
Delaware.....	84,000	5,000	6.0	.021
Mississippi.....	200,800	10,800	5.4	.005
Michigan.....	512,900	24,600	4.8	.005
New York.....	2,273,693	95,294	4.2	.017
Kentucky.....	145,400	5,169	3.6	.002
Oklahoma.....	196,950	3,000	1.5	.001

Table 49 shows for each State whether or not the health department through its engineering divisions has control by law of public water supplies, sewerage systems, bottled water, ice industry, camp grounds, swimming pools, and roadside water supplies. It indicates also the frequency of the analyses of water supplies and the inspection of purification plants.

PUBLIC WATER SUPPLIES AND SEWERAGE SYSTEMS

In connection with water systems the laws of 45 States require that all plans for the construction, alteration, or extension of public water supplies must be submitted to and approved by the State department of health. In Arizona the standards for public water supplies correspond with those of the United States Public Health Service, although this is not provided for by law. In Illinois and Vermont the health departments function only in an advisory capacity with regard to water supplies; Nevada has no legislation covering this subject.

Forty States have passed specific legislation regarding sewerage systems. Although Idaho and Utah have no specific sewage disposal laws, the health departments of these two States may control sewage disposal through general health legislation. In Alabama, Vermont, and Virginia, the departments of health act in an advisory capacity concerning sewerage systems. Arizona, Nevada, and New Hampshire have no legislative authority concerning the disposal of sewage.

TABLE 49.—Sanitary engineering activities

State	State department of health controls through legislation							8 Water supplies analyzed	9 Purification plants inspected
	1 Public water supplies	2 Sewerage systems	3 Bottled waters	4 Ice industry	5 Camp grounds	6 Swimming pools	7 Roadside wa- ter supplies		
Alabama.....	Yes.....	Advisory.....	Yes.....	Advisory.....	No.....	No.....	No.....	Quarterly.....	Quarterly.....
Arizona.....	Yes.....	No.....	Yes ¹	Yes.....	Yes.....	No.....	Yes.....	Annually.....	Annually.....
Arkansas.....	Yes.....	Yes.....	No.....	Yes.....	No.....	Yes.....	No.....	Irregularly.....	Irregularly.....
California.....	Yes.....	Yes.....	No.....	No.....	No.....	Yes.....	No.....	Do.....	Do.....
Colorado.....	Yes.....	Yes.....	No.....	No.....	Yes.....	Yes.....	Yes.....	Upon request.....	Annually.....
Connecticut.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Monthly.....	Monthly.....
Delaware.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	Yes.....	No.....	do.....	Semiannually.....
Florida.....	Yes.....	Yes.....	No.....	No.....	No.....	No.....	No.....	Quarterly.....	Annually.....
Georgia.....	Yes.....	Yes.....	Yes ¹	Yes.....	No.....	Yes.....	No.....	Monthly.....	Twice a year.....
Idaho.....	Yes.....	No ¹	No.....	No.....	Advisory.....	Advisory.....	No.....	Twice a year.....	Irregularly.....
Illinois.....	Advisory.....	Yes.....	No.....	No.....	No.....	Yes.....	Yes.....	(²).....	Do.....
Indiana.....	Yes.....	Yes.....	No.....	No.....	Yes.....	Yes.....	No.....	(³).....	Annually.....
Iowa.....	Yes.....	Yes.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	Annually.....	Irregularly.....
Kansas.....	Yes.....	Yes.....	Yes ¹	Yes.....	Yes.....	Yes.....	Yes.....	Do.....	Do.....
Kentucky.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Semiannually.....	Semiannually.....
Louisiana.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Annually.....	Annually.....
Maine.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Monthly.....	Monthly.....
Maryland.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	do.....	Every 2 months.....
Massachusetts.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No.....	No.....	Irregularly.....	Twice a year.....
Michigan.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	do.....	Annually.....
Minnesota.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Advisory.....	No.....	do.....	Twice a year.....
Mississippi.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	do.....	Annually.....
Missouri.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	No.....	Irregularly ¹	Semiannually.....
Montana.....	Yes.....	Yes.....	No.....	Yes.....	Yes.....	No.....	No.....	Twice a year.....	Not inspected.....
Nebraska.....	Yes.....	Yes.....	No.....	No.....	No.....	No.....	No.....	Do.....	Do.....
Nevada.....	No.....	No.....	No.....	No.....	No.....	Advisory.....	Yes.....	Irregularly.....	Irregularly.....
New Hampshire.....	Yes.....	No.....	Yes.....	Yes.....	Yes.....	do.....	Advisory.....	Annually.....	Annually.....
New Jersey.....	Yes.....	Yes.....	Yes.....	Advisory.....	Yes.....	Yes.....	No.....	Quarterly.....	Twice a year.....
New Mexico.....	Yes.....	Yes.....	No.....	No.....	Yes.....	Yes.....	No.....	Irregularly ¹	Annually.....
New York.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No.....	No.....	Monthly.....	Irregularly.....
North Carolina.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	No.....	No.....	Regularly.....	Regularly.....
North Dakota.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No ¹	Yes.....	Irregularly.....	Annually.....
Ohio.....	Yes.....	Yes.....	No.....	No.....	No.....	No.....	No.....	Monthly.....	Irregularly.....
Oklahoma.....	Yes.....	Yes.....	No.....	No.....	No.....	Yes.....	No.....	Annually.....	Annually.....
Oregon.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No.....	Yes.....	Irregularly ²	Once a year.....
Pennsylvania.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	No.....	Yes.....	Monthly.....	Bi-monthly.....
Rhode Island.....	Yes.....	Yes.....	No.....	No.....	Yes.....	Yes.....	Yes.....	Quarterly.....	Annually.....
South Carolina.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Irregularly.....	Irregularly.....
South Dakota.....	Yes.....	Yes.....	No.....	No.....	Yes.....	Yes.....	No.....	do.....	do.....

- 1 Under the bureau of food and drugs.
- 2 No legislation passed, but department controls sewage disposal through general legislation.
- 3 According to the supply.
- 4 Public supplies semiannually; surface supplies once a month.
- 5 Quarterly and monthly.
- 6 Under consideration.

ANALYSES AND INSPECTIONS

Column 8 of Table 49 shows that public water supplies are analyzed annually in 4 States, semiannually in 2 States, quarterly in 4 States, monthly in 10 States, quarterly and monthly in 1 State, and at irregular intervals upon request or according to the supply in 24 States. The interval is not recorded in 2 States and no analyses are made in 1 State. Column 9 shows for each State the frequency of inspections of water purification plants. Inspections are made annually or semiannually in 22 States, quarterly in 2 States, every 2 months in 1 State, monthly or oftener in 4 States, and at irregular intervals in 16 States. The interval is not recorded in 1 State and no inspections are reported by 2 States.

BOTTLED WATERS

Column 3 of Table 49 indicates for each State whether or not its health department has legislative prerogative for the control of bottled waters offered for sale. Such control has been so delegated to 26 States. In four of these States the regulations are enforced by the food and drug division rather than by the sanitary engineering division. Kansas laws require that information regarding tests of bottled water be filed with the State department of health, that plants where the water is bottled be inspected twice a year by the sanitary engineer, and that a fee of \$30 be paid for each inspection. The health department of Maine requires the analyzing of bottled water and may prohibit its sale. A permit for the sale of bottled water is required by the health departments in Florida and Maryland.

ICE INDUSTRY

Twenty-two State departments of health have jurisdiction over the ice industry and two additional State departments serve in an advisory capacity as shown in Table 49, column 4. In Indiana the health department exercises supervision without specific legal authority. In Arizona, Maine, Mississippi, and Missouri the water from which ice is made must conform to the bacteriological standards set for drinking water, whereas in Arkansas, Delaware, Montana, and South Carolina the State department of health can give or withhold approval of the water supply from which ice is made. Connecticut and New Hampshire laws require that ice be cut only from pure water. Iowa has jurisdiction regarding the quality of ice used in cold drinks. The laws of Kansas and Maryland are designed to give the health departments responsibility for preventing the sale of ice dangerous to health, and in the former State each ice plant must be licensed annually, for which a fee of \$15 is charged.

CAMP SANITATION

Column 5 of Table 49 shows that 37 States have rules and regulations regarding the sanitation of camps. The health departments of

Illinois, New Jersey, Texas, and Wisconsin act in an advisory capacity regarding camp sanitation.

SWIMMING POOLS

The sanitary engineering divisions have varying degrees of authority regarding the sanitation of swimming pools in 28 States as shown in column 6 of Table 49, and serve in an advisory capacity only in 5 States. Such legislation is under consideration in Ohio. Plans for construction and permits for conducting swimming pools are required by the health departments of the following 7 States: Arkansas, California, Florida, Kansas, Nebraska, Tennessee, and West Virginia.

ROADSIDE WATER SUPPLIES

In 23 States roadside water supplies are under the control of the State department of health and in New Jersey and Texas the health departments act in an advisory capacity. Pennsylvania in 1924 undertook a campaign for the protection of semipublic supplies along the highways and in 1929 about 4,500 sources of supply were examined. In Illinois, Pennsylvania, and West Virginia inspections are made and "safe water" placards used to indicate satisfactory supplies. New Mexico has no regulations regarding roadside water supplies, but a large number of samples are examined each year and improvements suggested.

SANITARY ENGINEERING LABORATORIES

Laboratories are maintained by the bureau or division of sanitary engineering in 16 States:

California.....	Part-time laboratory director, biologist, and helper.
Colorado.....	Part-time bacteriologist.
Florida.....	Chemical and bacteriological water analyses.
Georgia.....	Chemist and assistant.
Idaho.....	Sanitary engineer is State chemist and State chemical laboratory is included in the division of sanitary engineering.
Illinois.....	2 milk sanitarians, a milk bacteriologist, 3 chemists, and 2 helpers.
Indiana.....	4 chemists.
Kansas.....	Assistant director, 2 chemists, 2 bacteriologists and 2 helpers.
Louisiana.....	Laboratory boat for oyster industry.
Maine.....	3 chemists.
Minnesota.....	2 associate sanitarians, 2 associate biologists, and 2 laboratory attendants.
Montana.....	Laboratory for water analyses.
New Hampshire....	Laboratory for water and sewage analyses.
Pennsylvania.....	3 motor field laboratories for water analyses and 5 laboratories for the study of stream pollution.
Rhode Island.....	Laboratory for chemical analyses.
Tennessee.....	Laboratory for testing sand for filters.

SHELLFISH SANITATION

The sanitation of shellfish areas is conducted by the bureau of sanitary engineering in the following 16 States: California, Connecticut, Florida, Louisiana, Maryland, Massachusetts, Mississippi, New Hampshire, New Mexico, North Carolina, Pennsylvania, Rhode Island, South Carolina, Washington, Wisconsin, and Wyoming.

MILK SUPPLIES

Activities relating to the sanitation of milk supplies are conducted with the cooperation of the bureau or division of sanitary engineering in the following 14 States:

Arkansas.....	Enforcement of milk laws.
Delaware.....	Enforcement of milk laws.
Idaho.....	Enforcement of milk laws.
Illinois.....	2 milk sanitarians.
Minnesota.....	2 milk sanitarians.
Mississippi.....	Survey of dairies.
Missouri.....	Milk supervisor.
New Hampshire....	Enforcement of pasteurization and inspection of dairies.
New Mexico.....	No milk laws, but the division of sanitary engineering assumes control.
New York.....	Grading, pasteurization and sale of milk, and inspection of dairies.
North Carolina.....	Milk ordinance enforced.
South Carolina.....	Milk ordinance enforced.
Texas.....	2 milk supervisors.
West Virginia.....	Milk ordinance enforced.

MISCELLANEOUS

In Alabama and North Carolina the engineering division enforces mandatory laws relating to sanitary privies. In the Southern States the engineering division participates actively in antimosquito measures directed specifically to the control of malaria. Engineers who devote themselves especially to this work are employed by the bureaus or divisions of sanitary engineering in Alabama, Arkansas, Georgia, Illinois, South Carolina, and Texas. A number of these States have special legislation regarding the impounding of water for hydroelectric purposes.

BUREAUS OR DIVISIONS OF INSPECTION, HOUSING, AND PLUMBING

A small group of seven bureaus or divisions of inspection, housing, and plumbing is listed in Table 50.

In California the activities consist of sanitary surveys, the investigation of complaints and nuisances, and rabies and plague control. Illinois and Indiana have divisions whose duties include the supervision and control of the sanitary features of lodging houses, hotels,

etc. The division in Indiana is also responsible for the sanitary conditions in industry. Colorado, Ohio, and Wisconsin have bureaus or divisions of plumbing inspection.

TABLE 50.—Bureaus or divisions of inspection, housing, and plumbing, 1925 and 1930

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
California.....	Division of sanitation—Sanitary inspection.	\$17,264	\$24,640	4	7	\$2,940	\$3,180
Colorado.....	Division of plumbing.....	(¹)	11,200	2	2	2,400	2,400
Illinois.....	Division of lodging-house inspection.....	20,025	39,375	11	12	3,600	4,000
Indiana.....	Division of housing and industrial hygiene.	7,500	5,500	2	2	3,000	3,300
Ohio.....	Bureau of plumbing inspection.....		(²)		4		2,600
Virginia.....	Town and camp sanitation.....	750	4,500	(³)	1	(³)	2,500
Wisconsin.....	Bureau of plumbing and domestic sanitation.	20,736	22,000	7	5	4,000	4,000

¹ Funds derived from fees.

² Under sanitary engineering.

³ Officials included whose time is devoted to more than 1 activity.

10. CHILD HYGIENE

Child hygiene as a separate activity of the State department of health has developed almost entirely within the last 15 years. A few States and the larger cities in 1915 were carrying on activities for reducing the infant death rate. They set the example that has more recently been adopted in the various State departments of health. In 1915 New York State was conducting a rather extensive infant hygiene program; Kansas had an organized division of child hygiene; and active educational measures were being carried out in Idaho, Maryland, North Carolina, Pennsylvania, and Utah. Various other States also were carrying on medical inspection of schools; but in general it may be said that in 1915 there was relatively little activity in maternal and child hygiene by the State departments of health.

ORGANIZATION

By 1930 practically every State department of health had adopted a program in child hygiene. Table 51 enumerates the States and gives for each the name of the bureau having charge of the work, the total yearly budget, the number of persons engaged in this branch of service, and finally, the salary of the director for 1925 and 1930. Twenty-seven States, it will be noted, have separate bureaus of child hygiene. In 10 States child hygiene and public health nursing are combined. In five States the activities are limited to maternity and infancy welfare. In Arizona child-hygiene activities are now carried on by the division of epidemiology, in Arkansas by the bureau of county health units, and in Washington by the division of public-

health nursing. Child-hygiene activities are conducted by the State university in Iowa and by the State department of public instruction in Colorado. The work formerly carried on by the division of child hygiene in Nevada has been discontinued.

TABLE 51.—*Maternal and child hygiene, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alabama.....	Bureau of child hygiene and public-health nursing.	(1)	\$22,940	3	7	\$3,000	\$3,180
Arizona.....	Division of epidemiology.....	\$5,000	(2)	4	(3)	2,400	(4)
Arkansas.....	Bureau of county health units.....	21,000	(1)	7	(1)	3,000	(1)
California.....	Division of public-health education—Bureau of child hygiene.	47,200	20,840	\$ 14	9	3,600	4,000
Colorado.....	Under the department of public instruction.						
Connecticut.....	Bureau of child hygiene.....	27,500	34,660	\$ 11	11	3,300	4,740
Delaware.....	do.....	36,504	33,000	\$ 9	20	3,600	3,900
Florida.....	Bureau of child hygiene and public-health nursing.	58,568	47,200	16	13	3,500	3,600
Georgia.....	Division of child hygiene.....	51,980	36,000	24	12	2,500	\$ 3,600
Idaho.....	Bureau of child hygiene.....	14,692	5,000	\$ 4	2	(7)	2,100
Illinois.....	Division of child hygiene and public-health nursing.	34,704	81,190	\$ 11	27	4,200	4,500
Indiana.....	Division of infant and maternal hygiene.	46,500	45,000	13	18	3,700	3,700
Iowa.....	Under State university.....						
Kansas.....	Division of child hygiene.....	5,000	10,000	\$ 3	\$ 5	2,500	2,500
Kentucky.....	Bureau of maternal and child hygiene.	47,598	17,141	\$ 12	19	3,600	3,600
Louisiana.....	Bureau of child hygiene.....	36,660	(5)	15	6	3,600	(5)
Maine.....	Division of public health nursing and child hygiene.	10,000	29,580	5	13	2,400	2,700
Maryland.....	Bureau of child hygiene.....	33,185	14,586	\$ 5	3	4,000	4,000
Massachusetts.....	Division of child hygiene.....	83,891	94,700	33	31	4,600	4,800
Michigan.....	Bureau of child hygiene and public-health nursing.	71,914	56,900	19	18	4,000	4,500
Minnesota.....	Division of child hygiene.....	55,385	42,700	\$ 27	\$ 16	4,500	¹⁰ 2,500
Mississippi.....	Bureau of child hygiene and public-health nursing.	61,684	27,500	\$ 16	16	2,500	3,300
Missouri.....	Division of child hygiene.....	43,000	35,750	25	10	4,800	6,000
Montana.....	Division of child welfare.....	22,404	15,000	\$ 17	\$ 3	4,200	3,000
Nebraska.....	Division of child hygiene.....	(5)	(5)	(5)	(5)	(5)	(5)
Nevada.....	No activities.....	¹¹ 16,044		¹¹ 8		¹¹ 1,800	
New Hampshire.....	Division of maternity, infancy, and child hygiene.	20,977	21,000	10	3	(9)	2,300
New Jersey.....	Bureau of child hygiene.....	96,285	123,023	48	62	4,000	4,500
New Mexico.....	Division of child hygiene and public-health nursing.	9,975	4,600	\$ 4	\$ 2	2,400	2,620
New York.....	Division of maternity, infancy, and child hygiene.	288,593	97,136	60	27	5,000	5,500
North Carolina.....	Bureau of maternity and infancy.....	40,260	50,580	3	8	3,000	4,600
North Dakota.....	Bureau of child hygiene and public-health nursing.	8,000	11,750	3	4	3,000	3,000
Ohio.....	Division of child hygiene.....	80,327	16,500	22	6	3,600	4,000
Oklahoma.....	Bureau of maternity and infancy.....	45,051	31,100	10	9	3,000	3,000
Oregon.....	Division of public-health nursing and child hygiene.	¹² 2,783	12,250	\$ 14	5	(13)	2,400
Pennsylvania.....	Bureau of child health—Preschool hygiene.	80,500	54,555	8	25	4,000	4,260
Rhode Island.....	Division of child hygiene.....	32,038	23,720	10	10	3,500	3,500

¹ Under county health units.

² Federal money.

³ Under communicable diseases. (See Table 15, p. 56.)

⁴ The epidemiologist is in charge.

⁵ Officials included whose time is devoted to more than 1 activity.

⁶ Also director of the division of venereal disease. Total salary is \$6,000.

⁷ Public health adviser is the director.

⁸ Not listed.

⁹ No director in 1930.

¹⁰ Part-time director.

¹¹ The children's bureau appropriation to the State is sent direct to the division of child welfare of the State board of health, whose connection with the State board of health is in name only.

¹² Remainder is included under county health units.

¹³ Executive officer is the director.

TABLE 51.—*Maternal and child hygiene, 1925 and 1930*—Continued

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
South Carolina...	Bureau of child hygiene and public-health nursing.	\$39,348	\$9,970	12	3	\$3,600	\$3,000
South Dakota...	Division of child hygiene.....	24,293	8,861	6	2	3,600	2,700
Tennessee.....	Division of administration—Maternal and child hygiene.	56,832	77,200	33	11	3,000	3,600
Texas.....	Bureau of child hygiene.....	98,898	59,570	41	30	3,600	4,000
Utah.....	do.....	19,500	(⁸)	3	2	3,600	(¹²)
Vermont.....	Division of maternal and infant hygiene.	5,000	5,000	2	2	1,950	1,900
Virginia.....	Bureau of child health.....	63,574	57,380	9	17	2,750	3,250
Washington.....	Division of public-health nursing.....	7,969	(¹⁴)	5	(¹⁴)	4,200	(¹⁴)
West Virginia.....	Division of child hygiene.....	23,400	17,500	7	5	3,000	4,000
Wisconsin.....	Bureau of child welfare.....	50,752	31,000	17	6	2,800	3,500
Wyoming.....	Division of maternal and infant welfare.	8,200	(¹⁴)	5	2	2,400	(¹⁴)

⁸ Officials included whose time is devoted to more than 1 activity.

¹² Not listed.

¹³ Executive officer is the director.

¹⁴ Under the division of public-health nursing. (See Table 64, p. 130.)

¹⁵ Under central administration. (See Table 6, p. 36.)

The maternity and infancy work of the State departments of health has been stimulated by the Sheppard-Towner funds, granted by the Federal Government. These funds, granted in 1921, were made available in March, 1922, and in 1925 accepted by all the States in the Union, except Connecticut, Illinois, Kansas, Maine, and Massachusetts. This fund terminated in June, 1930.

In 1930 the State appropriations for maternal and child hygiene varied from \$5,000 or less in three States to \$123,023 in New Jersey. The salaries prevailing for this branch of service correspond rather closely with those of other divisions of the State health organizations. The compensation of the directors is given in the right-hand column of Table 51.

In comparing the amounts appropriated for child-hygiene activities in 1925 with those appropriated in 1930, it will be noted that in only 10 States the appropriation has been increased while in 25 States it has been reduced. In many cases this decrease is due to the withdrawal of Sheppard-Towner funds.

In comparing the salaries of the directors of child-hygiene activities in 1925 with those for 1930, it will be noted that 23 States have increased the salary of the director in amounts ranging from \$100 to \$1,600. The arithmetic average for the salary of the director is \$3,572 as based on the 1930 amounts for 38 States.

The order in which the States are listed in Table 52 is determined by the percentage of the State health appropriations that are applied to measures in this field. The percentages range from 41.9 to 2.5, and 20 of the 38 States spend between 10 and 20 per cent of the total State legislative appropriation for health work for this branch of service. Ten States for which the general classification is not suitable are listed at the foot of the table. The per capita amount is recorded in the last column.

TABLE 52.—States arranged according to the percentage of the total State legislative appropriation for health work allotted to child hygiene, 1930¹

State	State legis- lative ap- propriation	State legis- lative ap- propriation for child hygiene	Per cent- age	Per capita
New Hampshire.....	\$50,150	\$21,000	41.9	.045
Delaware.....	84,000	33,000	39.3	.138
North Dakota.....	33,950	11,750	34.6	.017
New Jersey.....	416,978	123,023	29.5	.031
Texas.....	213,520	59,570	27.9	.010
Montana.....	60,400	15,000	24.8	.028
Oregon.....	50,512	12,250	24.3	.013
Georgia.....	165,000	36,000	21.8	.012
Maine.....	145,500	29,580	20.3	.037
Missouri.....	188,750	35,750	18.9	.010
Rhode Island.....	129,498	23,720	18.3	.035
Florida.....	267,965	47,200	17.6	.032
South Dakota.....	51,058	8,861	17.4	.013
Indiana.....	266,500	45,000	16.9	.014
Virginia.....	352,645	57,380	16.3	.024
Oklahoma.....	196,950	31,100	15.8	.013
Tennessee.....	383,070	60,100	15.7	.023
Minnesota.....	275,300	42,700	15.5	.017
Mississippi.....	200,800	27,500	13.7	.014
New Mexico.....	34,500	4,600	13.3	.011
Idaho.....	37,750	5,000	13.2	.011
Illinois.....	642,261	81,190	12.6	.011
West Virginia.....	140,800	17,500	12.4	.010
Kentucky.....	145,400	17,141	11.8	.007
Massachusetts.....	829,995	94,700	11.4	.022
Michigan.....	512,900	56,900	11.1	.012
Vermont.....	45,000	5,000	11.1	.014
Connecticut.....	324,309	34,660	10.7	.022
North Carolina.....	491,470	50,580	10.3	.016
Kansas.....	108,456	10,000	9.2	.005
Wisconsin.....	352,313	31,000	8.8	.011
South Carolina.....	171,803	9,970	5.8	.006
California.....	386,550	20,840	5.4	.004
New York.....	2,273,693	97,136	4.3	.017
Alabama.....	635,813	22,940	3.6	.009
Pennsylvania.....	1,577,120	54,555	3.5	.006
Maryland.....	429,692	14,586	3.4	.009
Ohio.....	652,823	16,500	2.5	.002

¹ Under communicable diseases: Arizona. Under county health units: Arkansas. Under department of public instruction: Colorado. Under State university: Iowa. Under division of public health nursing: Washington. Under central administration: Wyoming. Data not available: Louisiana, Nebraska, Utah: No activities: Nevada.

² Appropriation for preschool hygiene only.

ACTIVITIES

Child hygiene activities may be grouped into four chief divisions: Maternity and prenatal work, including supervision of midwives; infant welfare; preschool hygiene; and school hygiene. Table 53 gives, by States, the information reported regarding infant hygiene activities.

PRENATAL WORK

Prenatal work has been carried out for the most part by local organizations in the larger cities. Prenatal clinics conducted by the State departments of health are listed by States in Table 53. It will be noted that 13 of the State departments of health conduct temporary, itinerant, or permanent prenatal clinics while 7 States report that the work is carried on entirely by the local health organizations. New York, Oregon, and Pennsylvania record both State and local

clinics, and Maine reports 570 home visits made by the health department. Six States report prenatal conferences or demonstrations conducted by the State department of health. In two States such activities are a function of the State educational department. In the remaining 16 States no prenatal clinics or conferences are reported as being conducted by the State department of health, the work in most of these States being educational and consisting of the distribution of pamphlets and leaflets to prospective mothers and the sending of monthly letters to mothers from the State departments of health.

TABLE 53.—*Maternal and child hygiene, 1929*

State	Prenatal clinics	Infant and preschool clinics	Number of infants examined
Alabama.....	284 full-time county health unit clinics.	1,996 clinics.....	8,013
Arizona.....	Conferences.....	Conferences.....	84
Arkansas.....	150 group conferences.....	437 conferences with mothers.....	4,850
California.....	None.....	811 conferences.....	¹ 6,374
Colorado.....	Under the department of public instruction.	Under the department of public instruction.	None
Connecticut.....	None.....	54 well-child conferences.....	3,446
Delaware.....	4 clinics conducted by physicians; 3 by nurses ²	4 clinics conducted by physicians; 12 by nurses.	² 25,312
Florida.....	Conferences.....	324 conferences.....	5,616
Georgia.....	105 itinerant clinics.....	105 itinerant clinics.....	5,576
Idaho.....	65 conducted by local organizations.	14 clinics.....	603
Illinois.....	None.....	27 clinics.....	3,765
Indiana.....	Conducted by local organizations.	Conducted by local organizations.....	12,025
Iowa.....	Under State university.....	Under State university.....	
Kansas.....	15 itinerant clinics.....	180 itinerant clinics.....	4,854
Kentucky.....	2 permanent clinics.....	138 clinics.....	3,088
Louisiana.....	None.....	None.....	None.
Maine.....	570 home visits.....	225 conferences.....	1,599
Maryland.....	A monthly clinic in one county.....	420 conferences.....	6,791
Massachusetts.....	None.....	47 well-child demonstrations.....	2,205
Michigan.....	do.....	None.....	None.
Minnesota.....	Temporary and itinerant clinics.....	A limited number of clinics.....	2,000
Mississippi.....	10 conducted by the full-time units.....	Child health conferences.....	35,039
Missouri.....	5 temporary and 15 permanent clinics.	166 temporary and 651 clinics conducted by full-time units.	12,087
Montana.....	None.....	400 conferences.....	6,343
Nebraska.....	do.....	Conferences.....	None.
Nevada.....	do.....	None.....	None.
New Hampshire.....	do.....	98 conducted by physicians.....	2,968
New Jersey.....	2 permanent clinics.....	138 permanent clinics.....	20,941
New Mexico.....	None.....	19 clinics.....	640
New York.....	50 local clinics per month; 34 State clinics per month.	145 local clinics; 226 itinerant State clinics.	(³)
North Carolina.....	Conducted by local health organizations.	None.....	None.
North Dakota.....	None.....	219 clinics.....	6,000
Ohio.....	do.....	213 preschool clinics.....	12,270
Oklahoma.....	do.....	Itinerant clinics.....	4,978
Oregon.....	21 itinerant clinics; 135 local permanent clinics.	21 itinerant and 661 local permanent clinics.	11,248
Pennsylvania.....	6 State and 75 non-State clinics.....	140 permanent, 124 itinerant, 551 special day and 268 non-State clinics.	⁴ 64,233
Rhode Island.....	One permanent clinic.....	6 preschool clinics.....	1,100
South Carolina.....	4 permanent clinics.....	468 local clinics.....	6,541
South Dakota.....	88 itinerant clinics.....	88 preschool clinics.....	2,184
Tennessee.....	Conducted by local organizations.	Conferences.....	
Texas.....	Temporary clinics.....	766 conferences.....	12,363
Utah.....	Conferences.....	541 combined maternal and preschool conferences and 24 dental clinics.	10,189
Vermont.....	do.....	22 preschool clinics.....	569
Virginia.....	None.....	935 clinics.....	8,761
Washington.....	do.....	90 itinerant clinics.....	5,601
West Virginia.....	40 local clinics.....	535 preschool clinics.....	5,277
Wisconsin.....	Combined with infant and preschool clinics.	541 clinics.....	13,464
Wyoming.....	10 conferences.....	40 conferences.....	800

¹ Infants under 1 year.² Number attending.³ 5,000 to 6,000 annually.⁴ At State clinics only. In addition 24,256 children were examined at non-State clinics.

MIDWIFERY

There is a great variation with regard to the supervision of midwives by the State departments of health. Massachusetts, Nebraska, South Dakota, Wisconsin, and Wyoming report that midwifery is not a problem and California, Maine, Minnesota, and New Hampshire report that the number of practicing midwives is steadily decreasing. In Nevada, Ohio, Oklahoma, Oregon, Utah, Vermont, and Washington little or no attention is paid to the instruction or supervision of midwives. In the Southern States, however, a large proportion of births, particularly among negroes, are attended by midwives. (See Table 35 under vital statistics.) There the instruction and supervision of midwives is a real problem. The type of instruction that is offered varies and is briefly stated in Table 54. It will be observed that the departments of health of 25 States give some instruction or supervision. The State agency for the licensing of midwives is listed in Table 36 under vital statistics.

LICENSING OF LYING-IN HOSPITALS

The licensing of lying-in hospitals is a State function in 29 States. As is shown in Table 55 maternity hospitals are licensed by the State board of health in 11 States, jointly by the State board of control and the State board of health in Minnesota, by a board other than the State board of health in 14 States and by the local boards of health in 3 States. In the remaining 19 States licensing either is not a function of the State board of health or there are no lying-in hospitals in the State.

LICENSING OF ORPHANAGES

The responsibility for the licensing of orphanages is not uniform. The States are classified in this respect in Table 56 and it will be noted that the function rests with the State board of health in 3 States, with the children's welfare department in 6 States, and with the department or commission of public welfare in 13 States.

TABLE 54.—*Midwifery*

Alabama.....	Regular policy of instruction with a system of annual permits.
Arizona.....	Instruction given by field nurses.
Arkansas.....	A permit to practice required.
California.....	The number of midwife confinements is small.
Colorado.....	License to practice required.
Connecticut.....	Instruction and supervision given and registration and examination required.
Delaware.....	Supervision and instruction given.

Florida.....	Supervision and instruction given.
Georgia.....	Under the control of the State board of health.
Idaho.....	Registration required.
Illinois.....	License to practice required.
Indiana.....	Instruction given.
Iowa.....	Not a responsibility of the State department of health.
Kansas.....	Instruction given.
Kentucky.....	Instruction given.
Louisiana.....	Instruction given where possible.
Maine.....	No instruction given. Number growing smaller.
Maryland.....	Lectures, demonstrations, and an examination given annually.
Massachusetts.....	Midwives not recognized.
Michigan.....	Regular inspection of midwives made.
Minnesota.....	No instruction or supervision given. Number of midwives decreasing.
Mississippi.....	Instruction given and annual permit required.
Missouri.....	Instruction and supervision given.
Montana.....	Instruction given through letter, but no supervision.
Nebraska.....	Midwifery not a problem.
Nevada.....	No instruction given.
New Hampshire.....	Only 4 active midwives in the State.
New Jersey.....	Supervision and instruction given.
New Mexico.....	Instruction given through county nurses.
New York.....	Instruction and supervision given and inspection made.
North Carolina.....	Instruction given in several counties.
North Dakota.....	Letters of instruction sent out occasionally.
Ohio.....	No instruction or supervision.
Oklahoma.....	No instruction or supervision.
Oregon.....	No instruction or supervision.
Pennsylvania.....	Supervision and instruction given.
Rhode Island.....	Supervision and instruction given.
South Carolina.....	Lectures and demonstrations given and inspection made by the nurses.
South Dakota.....	Midwives not recognized.
Tennessee.....	Supervision and instruction given through the full-time county health units.
Texas.....	Instruction given.
Utah.....	No instruction or supervision given.
Vermont.....	No instruction or supervision given.
Virginia.....	Course of lectures given and a permit to practice required.
Washington.....	No supervision or instruction given.
West Virginia.....	A license to practice required.
Wisconsin.....	Midwifery not a problem.
Wyoming.....	Midwifery not a problem.

TABLE 55.—*Licensing of lying-in hospitals*

State board of health	Department or commission of public welfare	Department of child welfare	Local boards of health
California. Colorado. Idaho. Kansas. Maine. Minnesota. ¹ New Jersey. Ohio. South Dakota. Texas. Utah. Wisconsin.	Illinois. Massachusetts. Michigan. Nebraska. New Hampshire. Pennsylvania. Rhode Island. Virginia.	Alabama. North Dakota. Oregon.	Connecticut. Florida. New York.
Exceptions		No hospitals	Not licensed by the State board of health
Indiana—Board of charities. Missouri—Board of charities and corrections. Tennessee—Department of institutions.		Kentucky. Mississippi. Montana. Nevada. New Mexico. North Carolina. South Carolina. Vermont. Washington. West Virginia. Wyoming.	Arizona. Arkansas. Delaware. Georgia. Iowa. Louisiana. Maryland. Oklahoma.

¹ Jointly with the State board of control.TABLE 56.—*Licensing of orphanages*

State board of health	Children's welfare department	Commission or department of public welfare	
Kansas. Texas. Utah.	Alabama. Connecticut. Iowa. North Dakota. Oregon. West Virginia.	California. Florida. Illinois. Maine. Massachusetts. Michigan. New Hampshire.	North Carolina. Ohio. Pennsylvania. Rhode Island. South Carolina. Virginia.
State board of control	Exceptions	Not licensed by the State board of health	
Minnesota. Wisconsin.	Indiana—Board of charities. Missouri—Board of charities and corrections. New York—Department of social welfare. Tennessee—Department of institutions.	Arizona. Arkansas. Colorado. Delaware. Georgia. Idaho. Kentucky. Louisiana. Maryland. Mississippi.	Montana. Nebraska. Nevada. New Jersey. New Mexico. Oklahoma. South Dakota. Vermont. Washington. Wyoming.

OPHTHALMIA NEONATORUM

The legislation for the prevention of ophthalmia neonatorum varies in the different States. The disease is reportable in all States. In Michigan, North Dakota, and West Virginia it must be reported at once; in Kentucky, Oklahoma, and Utah within 6 hours; in

California and Oregon within 24 hours. In New Hampshire a midwife must report a case to the local board of health within 6 hours and a physician within 24 hours.

Prophylactic treatment for the eyes of the new born is required by law in 42 States. A 1 per cent solution of silver nitrate is used as a prophylactic in most States. In Utah five drops of 20 per cent argyrol are specified. In Indiana "necessary precautions" must be taken. In six States—California, Massachusetts, Montana, New Jersey, North Dakota, and Oregon—prophylactic treatment is not required, but in Massachusetts and North Dakota the use of 1 per cent solution of silver nitrate is urged. Table 57 gives the requirements of each State. Under the section on public-health laboratories, Table 46 gives the States which distribute silver-nitrate ampules free.

INFANT HYGIENE

Infant-welfare work is conducted by general educational methods, but more particularly through infant-hygiene clinics. Table 53 shows that 24 State departments of health conduct child-hygiene clinics of some sort. In 15 additional States no clinics are held by the State department of health, but child-welfare conferences and demonstrations are conducted. In 3 States child-hygiene activities are conducted by the local departments of health, in 2 States by the State educational authorities, and 4 States report no activities.

PRESCHOOL HYGIENE

The municipal and unofficial health agencies have been at work with the health problems of children under school age. Attempts are being made in certain States to furnish facilities for medical examination of the preschool child. The clinics usually are conducted in conjunction with infant-hygiene clinics through full-time county health-unit service, through itinerant clinics, and through the co-operation of voluntary agencies.

The facilities for correcting defects of preschool children are usually financed locally through public or private funds or a combination of both. The health department in Missouri conducts crippled children's clinics and California, Florida, New York, and South Carolina have a budget for orthopedic work. See Table 58.

TABLE 57.—*Treatment for ophthalmia neonatorum*

Alabama.....	Prophylactic required within two hours.
Arizona.....	"Drops" required.
Arkansas.....	2 per cent solution of silver nitrate required.
California.....	Silver nitrate not required, but distributed free by the State health department.
Colorado.....	Prophylactic required.
Connecticut.....	1 per cent solution of silver nitrate required immediately.

Delaware.....	Prophylactic required.
Florida.....	Prophylactic required.
Georgia.....	Silver-nitrate solution required.
Idaho.....	Prophylactic required.
Illinois.....	Prophylactic required.
Indiana.....	All necessary precautions must be used.
Iowa.....	Prophylactic required.
Kansas.....	Prophylactic required.
Kentucky.....	Prophylactic required.
Louisiana.....	Silver nitrate required.
Maine.....	Prophylactic required.
Maryland.....	1 per cent solution of silver nitrate required.
Massachusetts.....	Prophylactic not required, but silver nitrate is furnished free to physicians.
Michigan.....	Silver nitrate required.
Minnesota.....	1 per cent solution of silver nitrate required.
Mississippi.....	Prophylactic required.
Missouri.....	1 per cent solution of silver nitrate required.
Montana.....	Silver nitrate not required.
Nebraska.....	Silver salt required.
Nevada.....	Prophylactic required.
New Hampshire.....	1 per cent solution of silver nitrate or some equally efficient solution required.
New Jersey.....	Silver nitrate not required, but 1 per cent silver-nitrate ampules distributed free.
New Mexico.....	1 per cent solution of silver nitrate or a silver compound required.
New York.....	1 per cent solution of silver nitrate required.
North Carolina.....	Prophylactic required.
North Dakota.....	1 per cent solution of silver nitrate is urged.
Ohio.....	Prophylactic required.
Oklahoma.....	1 per cent solution of silver nitrate or a comparable anti-septic required.
Oregon.....	Prophylactic not required.
Pennsylvania.....	Silver nitrate required.
Rhode Island.....	Prophylactic required.
South Carolina.....	Silver nitrate required.
South Dakota.....	Prophylactic required.
Tennessee.....	1 per cent solution of silver nitrate required.
Texas.....	Prophylactic required.
Utah.....	20 per cent solution of argyrol required.
Vermont.....	Prophylactic required.
Virginia.....	Silver nitrate required.
Washington.....	Prophylactic required.
West Virginia.....	1 per cent solution of silver nitrate required.
Wisconsin.....	1 per cent solution of silver nitrate required.
Wyoming.....	Prophylactic measures required.

TABLE 58.—*Orthopedic service, 1925 and 1930*

State	Division or bureau in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
California.....	Division of administration—orthopedics.	-----	\$4,100	-----	2	-----	(¹)
Florida.....	Orthopedic service.....	\$10,385	10,000	² 1	1	\$1,800	\$2,400
New York.....	Division of orthopedic surgery.....	-----	23,445	-----	7	-----	5,500
South Carolina.....	Aid for crippled children.....	10,000	12,400	-----	3	-----	(³)
Vermont.....	Division of poliomyelitis.....	\$25,000	\$25,000	5	5	4,500	\$4,200

¹ Under the division of administration.² Part-time official.³ Director of the bureau of child hygiene and public health nursing.⁴ Supported by private donation.⁵ Salary of the director of research. The director for "after care" receives \$3,500 a year.

Dental hygiene clinics are being added to the activities of the State department of health of several States. In 1930 a separate bureau or division had been organized by six States for this type of service. (See Table 59.) In addition, Mississippi, North Carolina, South Carolina, and Virginia have established State dental clinics which do some preschool work. North Carolina conducts tonsil and adenoid clinics also.

TABLE 59.—*Dental hygiene, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Kentucky.....	Bureau of dental health.....	-----	\$10,000	-----	5	-----	(¹)
Maine.....	Division of dental hygiene.....	(²)	(²)	1	1	\$2,000	\$2,000
Maryland.....	Division of oral hygiene.....	-----	10,000	-----	2	-----	3,600
Michigan.....	Bureau of mouth hygiene.....	-----	7,400	-----	1	-----	4,500
Ohio.....	Bureau of dental hygiene.....	-----	(³)	-----	1	-----	3,600
Pennsylvania.....	Bureau of child health—dental hygiene.	\$6,000	9,697	3	3	4,000	4,260

¹ No salary.² Under the division of administration.³ Under the division of hygiene.

SCHOOL HYGIENE

In North Carolina and Pennsylvania there is a separate bureau in the State department of health for school hygiene, on which special information is given in Table 60.

TABLE 60.—*School hygiene activities, 1925 and 1930*

State	Bureau in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
North Carolina.....	Bureau of medical inspection of schools.	\$72,740	\$69,780	14	19	\$3,900	\$4,000
Pennsylvania.....	Bureau of child health—school hygiene.	125,000	116,143	¹ 277	¹ 420	4,740	² 7,500

¹ Officials included whose time is devoted to more than 1 activity.² Also deputy secretary of health.

In addition, school hygiene work is made a function of the State department of health in nine States and in two other States the departments of health and education share the responsibility. Of the remaining 35 States, nine place the responsibility for school hygiene with the State department of education, 19 with the local educational or health authorities, and 7 report no activities. The States are grouped in Table 61 under appropriate headings to show how the work is administered.

Facilities for correcting defects of school children are generally supplied through local sources.

Nineteen States report some legislative requirements in regard to the medical examination of school children. This information is listed in Table 62.

TABLE 61.—*School hygiene activities conducted by—*

Separate bureau of the health department	Bureau or division of child hygiene	Bureau of communicable diseases	State departments of health and education
North Carolina. Pennsylvania.	Alabama. Delaware. Florida. Kentucky. Mississippi. South Carolina. South Dakota. Texas.	Maryland.	Indiana. Virginia.
State department of education	Local departments of health or education		No activities
California. Iowa. Maine. Minnesota. New Hampshire. New Jersey. New York. Vermont. Wyoming.	Arkansas. Connecticut. Georgia. Illinois. Kansas. Louisiana. Massachusetts. Missouri. Montana. Nebraska	New Mexico. North Dakota. Ohio. Oregon. Tennessee. Utah. Washington. West Virginia. Wisconsin.	Arizona. Colorado. Idaho. Nevada. Michigan. Oklahoma. Rhode Island.

TABLE 62.—*Medical examination of school children*

Alabama.....	Annual examination required.
Connecticut.....	In each town of 10,000 or more the medical examination of school children is required by law.
Delaware.....	An effort is made to have each child examined each year.
Florida.....	Required by law. No funds.
Georgia.....	Required annually in organized counties.
Indiana.....	Medical examination of school children is permissible by law.
Maryland.....	Communities act under a permissive county bill.
Massachusetts.....	Annual medical examination required by law.
Montana.....	Annual medical examination required by law.
New Jersey.....	Every board of education must have a medical inspector.
New York.....	Annual medical examination required by law.
North Carolina.....	Teachers must inspect every child once in 3 years.
North Dakota.....	Counties are authorized to employ 1 or more licensed physicians to examine school children.
Oregon.....	Annual examination required.

Pennsylvania.....	Annual examination required.
South Carolina.....	All school children must have a physical examination annually.
Utah.....	Examination by teachers required.
Virginia.....	Local boards must appropriate funds for the medical inspection of school children.
West Virginia.....	Mandatory law.

MENTAL HYGIENE

In 1930 only two States had a separate appropriation for mental hygiene under the supervision of the State department of health; namely, Connecticut and Louisiana. (See Table 63.)

In Connecticut, the division furnishes information regarding the extent of nervous diseases and the facilities for the care of persons with such diseases; gives assistance in establishing local mental clinics; aids in the training of social workers and nurses in mental hygiene; and assists in the adjustment of mental hygiene in industry. At the beginning of 1930 there were 21 general clinics for this work conducted by various organizations.

In Louisiana the work is conducted along educational lines. In Georgia the training school for mental defectives is under the direction of the State board of health.

TABLE 63.—*Mental hygiene, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Connecticut.....	Division of mental hygiene.....	\$5,000	\$17,330	13	5	\$300	\$5,000
Georgia.....	Training school for mental defectives.....	27,920	110,420	10	31	4,500	5,000
Louisiana.....	Bureau of mental hygiene.....	(¹)	-----	-----	1	-----	3,000

¹ Part time officials included.

² Part time director.

³ No specific allotment by bureaus.

11. PUBLIC-HEALTH NURSING

ORGANIZATION

Table 64 gives for 1925 and 1930 the bureau or division of the State department of health having responsibility for public-health nursing activities, the amount of money applied to the service, the number of persons employed, and the salary of the director.

Public-health nursing as a separate division of State health organizations was established in 9 States in 1930 namely, California, Connecticut, Indiana, Kentucky, New York, Ohio, Pennsylvania, Washington, and Wisconsin. In 10 States, public-health nursing is combined with child hygiene or maternity and infancy hygiene to form a division or bureau (see Table 51); in 18 States public-health nursing activities are carried on under the bureau or division of child hygiene or that of maternity and infancy hygiene; in 5 States, nursing activities are under the supervision of the central office; and in the

remaining 6 States, no public-health nursing activities are carried on by the health department.

SUPERVISION

The plan for supervision of public-health nursing varies in the different States. By reference to Table 65 it will be noted that in 21 States, the nursing service is under a State director or supervisor of nurses of the health department staff. District supervisors may serve under the State supervisory nurse as in Michigan, where there are district supervisors and 71 field nurses. In Illinois there are 12 district supervising nurses. In 15 States the supervision of public-health nursing is conducted by the director of the bureau or division of child hygiene or maternity and infancy hygiene. In six States—Arizona, California, Delaware, Maryland, Nebraska, and Nevada—the executive officer supervises the nursing activities. In Arkansas, Colorado, Idaho, Iowa, Louisiana, and Vermont no nursing activities are carried on by the health departments.

ELIGIBILITY REQUIREMENTS

The States vary considerably in the eligibility requirements specified for State and local public-health nurses. (See Table 66.) Among the eligibility requirements for a State public-health nurse, 31 States require registration. Three States, Nebraska, New Mexico, and Oregon, have adopted the standards required by the National Organization of Public-Health Nursing, which are also advocated, though not required, by Washington. Massachusetts requires a civil-service examination. Three States, Idaho, Rhode Island, and Vermont, report no eligibility requirements. Special training or experience in public-health work is required by 33 States.

TABLE 64.—*Public-health nursing, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alabama.....	Bureau of child hygiene and public-health nursing.	\$3,163	(?)	1	(?)	\$1,000	(?)
California.....	Division of administration—public-health nursing.	10,000	\$15,805	(?)	5	(?)	\$3,000
Connecticut.....	Bureau of public-health nursing.....	10,000	25,025	3	5	2,940	3,250
Indiana.....	Division of public-health nursing.....	7,500	9,000	3	3	2,500	2,700
Kentucky.....	Bureau of public-health nursing.....	(?)	7,500	3	41	2,400	2,400
Maryland.....	Executive office ¹	12,000	(?)	4	5	2,100	(?)
New York.....	Division of public-health nursing.....	56,026	221,660	21	71	4,000	4,500
Ohio.....	do.....	15,238	25,830	6	9	3,000	3,300
Oregon.....	Division of public-health nursing and child hygiene.	7,000	(?)	2	(?)	2,400	(?)
Pennsylvania.....	Bureau of nursing.....	280,000	284,344	153	148	3,720	4,260
Washington.....	Division of public-health nursing.....	(?)	3,962	(?)	2	(?)	2,400
Wisconsin.....	Bureau of public-health nursing.....	(?)	20,000	(?)	5	(?)	3,500

¹ Budget for public-health nursing only.

² Under child hygiene. (See Table 51, p. 118.)

³ No appropriation; salaries provided through other bureaus.

⁴ Officials included whose time is devoted to more than 1 activity.

⁵ Division discontinued in 1925.

⁶ Under executive office.

⁷ 10 nurses are recorded under the division of child hygiene.

TABLE 65.—*Public-health-nursing service supervised by—*

Alabama.....	Director of the bureau of child hygiene and public-health nursing.
Arizona.....	Executive officer.
Arkansas.....	No nursing activities, except through local or county organizations.
California.....	Executive officer.
Colorado.....	No nursing activities.
Connecticut.....	Director of the bureau of public-health nursing.
Delaware.....	Executive officer.
Florida.....	Director of the bureau of child hygiene and public-health nursing.
Georgia.....	Director of the division of child hygiene.
Idaho.....	No nursing activities.
Illinois.....	Supervisory nurse.
Indiana.....	Supervisory nurse.
Iowa.....	Supervisory nurse paid by the Iowa Tuberculosis Association.
Kansas.....	Director of the division of child hygiene.
Kentucky.....	Supervisory nurse.
Louisiana.....	No nursing activities, except through local or county organizations.
Maine.....	Director of the division of public-health nursing and child hygiene.
Maryland.....	Executive officer.
Massachusetts.....	Supervisory nurse.
Michigan.....	Supervisory nurse.
Minnesota.....	Supervisory nurse.
Mississippi.....	Supervisory nurse.
Missouri.....	Supervisory nurse.
Montana.....	Director of the division of child welfare.
Nebraska.....	Executive officer.
Nevada.....	Executive officer.
New Hampshire.....	Supervisory nurse.
New Jersey.....	Director of the bureau of child hygiene.
New Mexico.....	Director of the division of child hygiene and public-health nursing.
New York.....	Director of the division of public-health nursing.
North Carolina.....	Supervisory nurse.
North Dakota.....	Director of the bureau of child hygiene and public-health nursing.
Ohio.....	Director of the division of public-health nursing.
Oklahoma.....	Supervisory nurse.
Oregon.....	Supervisory nurse.
Pennsylvania.....	Supervisory nurse.
Rhode Island.....	Director of the division of child hygiene.
South Carolina.....	Director of the bureau of child hygiene and public-health nursing.
South Dakota.....	Director of the division of child hygiene.
Tennessee.....	Supervisory nurse.
Texas.....	Director of the bureau of child hygiene.
Utah.....	Director of the bureau of child hygiene.
Vermont.....	No nursing activities.

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Virginia.....	Director of public-health nursing, a division of the bureau of child health.
Washington.....	Advisory nurse.
West Virginia.....	Director of the division of child hygiene.
Wisconsin.....	Director of the bureau of public-health nursing.
Wyoming.....	Supervisory nurse.

TABLE 66.—*Eligibility requirements for State public-health nurses*

Alabama.....	Registered nurse with one year of training in public health ; evidence of executive ability.
Arizona.....	Registered nurse with experience.
Arkansas.....	Graduate nurse with public-health training.
California.....	Registered nurse with certificate from the State board of health.
Colorado.....	Registered nurse.
Connecticut.....	Registered nurse with public-health training; certificate from examining board.
Delaware.....	Registered nurse with training or experience.
Florida.....	Graduate nurse with at least six months' training in public-health work.
Georgia.....	Registered nurse with public-health training.
Idaho.....	No nursing service.
Illinois.....	Registered nurse with training and extensive experience in public-health work.
Indiana.....	Registered nurse with four months' public-health training or a year of experience under supervision.
Iowa.....	Registered nurse with special training in public-health work.
Kansas.....	Graduate nurse with a year's training in public-health work.
Kentucky.....	A course in public-health nursing and experience in the field.
Louisiana.....	Registered nurse with special public-health training.
Maine.....	Registered nurse with public-health certificate and experience in prenatal, maternal, and infancy work.
Maryland.....	Registered nurse with public-health experience.
Massachusetts.....	Civil-service examination.
Michigan.....	Registered nurse with four months' public-health training or eight months' experience under supervision.
Minnesota.....	Registered nurse certified by the Minnesota certification committee.
Mississippi.....	Registered nurse with theoretical and practical experience.
Missouri.....	Registered nurse with four months' course in public-health nursing and eight months' experience under supervision.
Montana.....	Registered nurse with one year's course in public health or its equivalent in training and experience.
Nebraska.....	Standards of the national organization of public-health nurses.
Nevada.....	Graduate nurse versed in public-health work.
New Hampshire.....	Registered nurse.
New Jersey.....	Registered nurse.
New Mexico.....	Standards of the national organization of public-health nurses.

New York.....	Registered nurse with one year's experience under supervision and a course in public health approved by the public-health council.
North Carolina.....	Registered nurse with special training and experience.
North Dakota.....	Graduate nurse with training in public health and the approval of the State health officer.
Ohio.....	Registered nurse with course in public-health nursing or eight months' experience under supervision.
Oklahoma.....	Graduate nurse.
Oregon.....	Standards of the national organization of public-health nurses.
Pennsylvania.....	Registered nurse with public-health training or experience.
Rhode Island.....	No requirement.
South Carolina.....	Graduate of an accredited training school with public-health training or experience.
South Dakota.....	Registered nurse with at least four months' training or eight months' experience under supervision.
Tennessee.....	Registered nurse.
Texas.....	Registered nurse with public-health training and experience.
Utah.....	Registered nurse with training and experience in public-health nursing.
Vermont.....	No requirements.
Virginia.....	Registered nurse with one year on visiting-nurse staff under close supervision or a course in public-health nursing in a recognized school.
Washington.....	No legal requirements. Standards of the national organization of public-health nurses advocated.
West Virginia.....	Training and experience in public-health work.
Wisconsin.....	Registered nurse with three years' experience, two of which must have been in public-health work.
Wyoming.....	Registered nurse with previous training in public-health work.

SPECIAL BUREAUS OR DIVISIONS OF NURSING

Under the division of public health education, California maintains a bureau for the registration of nurses. The activities of this bureau include the registration, examination, and certification of nurses, and the inspection of accredited schools of nursing.

The Iowa State Department of Health maintains a division of nursing education whose function it is to ascertain the standing and curricula of training schools for nurses.

In Wisconsin a bureau of nursing education was established in 1921 for the registration and examination of nurses.

Table 67 gives the 1925 and 1930 appropriation, the number of personnel, and the salary of the director for the three bureaus or divisions mentioned above.

TABLE 67.—*Special bureaus or divisions of nursing, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
California.....	Division of public health education— Bureau of registration of nurses.	\$17,090	\$18,340	7	10	\$3,000	\$3,000
Iowa.....	Division of nursing education.....		\$3,000		1		3,000
Wisconsin.....	Bureau of nursing education.....	10,111	15,000	4	6	3,000	3,600

¹ Self-supporting from fees.² Officials included whose time is devoted to more than one activity.³ Plus necessary traveling expenses.

12. PUBLIC-HEALTH EDUCATION

ORGANIZATION

Table 68 lists the States having a separate bureau or division of the State department of health devoted to public health educational activities. The amount of money appropriated for the work, the number of persons employed, and the salary of the director for 1925 and 1930 are shown. It will be noted that the State departments of health of 17 States have a separate bureau or division in charge of educational activities, in addition, 25 States conduct the work in the executive or central administrative office. The work is in charge of the division of child hygiene in Massachusetts, and in Missouri, New Hampshire, Rhode Island, and South Dakota the head of each division is responsible for promoting the educational and publicity activities of his division. Idaho does not carry on any special educational work. (See Table 69.)

EDUCATIONAL METHODS

The educational program of the various States usually provides for publicity through articles on health matters in newspapers, magazines, bulletins, and pamphlets, and through lectures, motion pictures, and exhibits on special subjects.

Table 70 shows whether or not the State departments of health cooperate with the press service, issue periodical bulletins, distribute pamphlets on health subjects, own motion-picture films and portable exhibits, and cooperate with the State board of education.

PRESS SERVICE

Nineteen States maintain regular newspaper service, 26 States cooperate with the local newspapers by submitting news and articles on health subjects from time to time, and 3 States report that they have no press service.

Each week the Illinois State Department of Health mails a 300-word story and a page of pointed paragraphs to every newspaper in the

State. Pennsylvania syndicates a weekly health letter to 365 newspapers, Texas to 450 newspapers, and Virginia issues two or three notices each week. In West Virginia a column of plate is sent to the country weeklies once a month and illustrated feature stories are prepared for the Sunday papers.

TABLE 68.—*Public-health education, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
California.....	Division of administration—Public-health information.	\$3,000	(¹)	1	1	\$3,000	\$3,000
Connecticut.....	Bureau of public-health instruction.	(²)	\$7,156	2	2	2,250	3,096
Illinois.....	Division of public-health instruction.	14,438	16,400	³ 5	³ 5	3,000	4,000
Kentucky.....	Bureau of public-health education.	(²)	(⁴)	³ 3	(⁴)	2,000	(⁴)
Michigan.....	Bureau of education.	21,789	18,200	7	5	3,500	3,500
New Jersey.....	Bureau of public-health education.	(¹)	(⁵)	(¹)	1	(¹)	4,500
New Mexico.....	Division of health education.	552	(¹)	(⁶)	(¹)	(¹)	(¹)
New York.....	Division of public-health education.	41,864	49,647	13	15	4,500	5,000
North Carolina.....	Bureau of health education.	(¹)	11,410	(¹)	3	(⁶)	4,800
Ohio.....	Bureau of publicity.	(¹)	(¹)	(¹)	1	(¹)	3,000
Oklahoma.....	Bureau of public-health education.	4,900	3,900	³ 2	2	2,400	2,400
Pennsylvania.....	do.	10,000	7,242	2	3	3,500	4,000
Tennessee.....	Division of administration—Public-health education.	5,300	27,360	3	3	2,850	3,000
Texas.....	Bureau of public-health education.	(⁷)	1,500	(⁷)	³ 2	(⁷)	(⁶)
Virginia.....	Bureau of publicity.	5,600	13,450	1	1	2,500	2,500
West Virginia.....	Bureau of public-health education.	5,250	3,700	2	1	1,800	2,000
Wisconsin.....	Bureau of education.	(¹)	(⁴)	1	2	2,700	3,000

¹ Included under central administration.

² Supported from funds from each bureau.

³ Officials included whose time is devoted to more than 1 activity.

⁴ Provided through other bureaus.

⁵ Budgets not allotted by bureaus.

⁶ Executive officer.

⁷ Included under the bureau of child health.

TABLE 69.—*Publicity*

Director of division of public-health education	Executive officer or central administrative office	Division of child hygiene	Head of each bureau or division	No publicity
California. Connecticut. Illinois. Kentucky. Michigan. New Jersey. New Mexico. New York. North Carolina. Ohio. Oklahoma. Pennsylvania. Tennessee. Texas. Virginia. West Virginia. Wisconsin.	Alabama. Arizona. Arkansas. Colorado. Delaware. Florida. Georgia. Indiana. Iowa. Kansas. Louisiana. Maine. Maryland. Minnesota. Mississippi. Montana. Nebraska. Nevada. North Dakota. Oregon. South Carolina. Utah. Vermont. Washington. Wyoming.	Massachusetts.	Missouri. New Hampshire. Rhode Island. South Dakota.	Idaho.

TABLE 70.—Public health education, 1929

State	Cooperation with press service	Periodical bulletins issued	Pamphlets distributed	Motion-picture films	Portable exhibit	Cooperation with the State board of education
Alabama	Yes	(1)	Yes	No	Yes	Yes
Arizona	Yes ¹	Monthly	Yes	Yes	No	Yes
Arkansas	Yes	No	Yes	Yes	Yes	Yes
California	Yes	Weekly	Yes	Yes	Yes	Yes
Colorado	Yes	Monthly	Yes	Yes	Yes	Yes
Connecticut	Yes ²	do. ³	Yes	Yes	Yes	Yes
Delaware	Yes ¹	Bimonthly	Yes	Yes	Yes	Yes
Florida	Yes	Monthly	Yes	Yes	No	Yes
Georgia	Yes	do	Yes	Yes	Yes	Yes
Idaho	Yes	No	No	No	No	Yes
Illinois	Yes ¹	Quarterly ⁴	Yes	Yes	Yes	Yes
Indiana	Yes	Monthly	Yes	Yes	Yes	Yes
Iowa	No	Quarterly	Yes	Yes	Yes	Yes
Kansas	Yes	No	Yes	Yes	No	Yes
Kentucky	Yes	Monthly	Yes	Yes	Yes	Yes
Louisiana	Yes	Quarterly	Yes	Yes	Yes	Yes
Maine	Yes	No	Yes	Yes	Yes	Yes
Maryland	Yes ¹	Monthly	Yes	Yes	Yes	Yes
Massachusetts	Yes ¹	Quarterly	Yes	Yes	Yes	Yes
Michigan	Yes	Monthly	Yes	No	Yes	Yes
Minnesota	Yes	No	Yes	Yes	Yes	Yes
Mississippi	Yes ¹	Weekly	Yes	Yes	Yes	Yes
Missouri	Yes	Monthly	Yes	Yes	Yes	Yes
Montana	Yes	Bimonthly	Yes	Yes	Yes	Yes
Nebraska	Yes	No	No	No	Yes	?
Nevada	Yes	No	Yes	No	No	Yes
New Hampshire	Yes	Monthly	Yes	Yes	Yes	Yes
New Jersey	Yes ¹	do	Yes	Yes	Yes	Yes
New Mexico	No	No	Yes	Yes	Yes	Yes
New York	Yes ¹	Weekly	Yes	Yes	Yes	Yes
North Carolina	Yes ¹	Monthly	Yes	Yes	No	Yes
North Dakota	Yes	No	No	No	No	Yes
Ohio	Yes	Bimonthly	Yes	Yes	Yes	Yes
Oklahoma	Yes ¹	Weekly	Yes	Yes	Yes	Yes
Oregon	Yes ¹	Monthly	Yes	Yes	Yes	Yes
Pennsylvania	Yes ¹	Bimonthly	Yes	Yes	Yes	Yes
Rhode Island	Yes ¹	Monthly	Yes	Yes	Yes	Yes
South Carolina	Yes	No	Yes	Yes	Yes	Yes
South Dakota	Yes	No	Yes	Yes	Yes	Yes
Tennessee	Yes ¹	Monthly	Yes	Yes	Yes	Yes
Texas	Yes ¹	do	Yes	No	Yes	Yes
Utah	Yes	No	Yes	Yes	Yes	No
Vermont	No	No	Yes	Yes	No	Yes
Virginia	Yes ¹	Monthly	Yes	Yes	Yes	Yes
Washington	Yes	Yes ¹	Yes	Yes	Yes	Yes
West Virginia	Yes ¹	Quarterly	Yes	Yes	Yes	Yes
Wisconsin	Yes ¹	do	Yes	Yes	Yes	Yes
Wyoming	Yes	Bimonthly	Yes	No	No	Yes

¹ Every 2 months.² Regular service.³ Also a weekly bulletin.⁴ Also a bimonthly bulletin.⁵ A weekly bulletin is published by the division of communicable diseases and a bimonthly bulletin is issued by the division of public health nursing.

BULLETINS

Thirty-five State departments of health publish periodical bulletins which are issued weekly, bimonthly, monthly, or quarterly. Ten additional States published pamphlets on particular subjects, and three State departments of health did not publish any bulletins or pamphlets in 1929.

GRAPHIC MATERIAL

Forty States own motion-picture films and many also have projecting machines, though the number is not available. Portable exhibits on various health subjects are used by 39 States.

Health trucks equipped with dynamo, moving-picture projector, etc., are used in Arkansas, Florida, Georgia, Mississippi, New York, Ohio, and Virginia for the benefit of the rural population. Portable exhibits are also transported to rural districts by these trucks.

SPECIAL EXHIBITS

Thirty-nine State departments of health own portable exhibits. New York has wax models which are used by the division of venereal-disease control. Wisconsin has a set of large, hand-painted panels in pictorial and chart form to outline the department's varied functions and activities. One set describes the latest proceedings in the control of communicable diseases, such as toxin-antitoxin vaccination and goiter prevention; another set is devoted to the work of the sanitary engineering and plumbing divisions; and another to venereal-disease prevention and social hygiene. A staff artist is employed for this work.

COOPERATION WITH THE STATE BOARD OF EDUCATION

Cooperative programs are carried on jointly by the State boards of education and health in 46 states.

Cooperation with the State department of education is carried on in different ways. In Arkansas courses in public health at county teachers' institutes are conducted jointly by the two boards. Again, in Arkansas and Idaho there is close cooperation between the county superintendents, the State department of education, and the State department of health in the sanitation of public-school buildings and grounds. Illinois and Indiana are promoting teacher training in health subjects. In Kentucky the State department of health contributes the course of study in public health as a definite part of the State board of education's course of study textbook, provides a course of lectures and an outline of a health program for each normal school, and supplies health lecturers for educational club groups. In Massachusetts summer courses and regional conferences are conducted jointly by the two departments. In Minnesota the director of physical and health education of the State department of education consults the executive officer and the directors of the divisions of the State department of health when preparing the outline for health education which applies in all public schools of the State. In Virginia and West Virginia the State department of education cooperates with the department in providing better health conditions in schools and in plans for health courses. The county institute programs prepared by the department of education in West Virginia provide for an address on health by an official of the State department of health. In Wisconsin, in cooperation with the

State department of public instruction, the health department organizes school courses in the care of infants.

13. FOOD AND DRUGS

ORGANIZATION

The enforcement of food and drug laws is intrusted, in 18 States, to the department of agriculture (see Table 71) and in 5 States to the dairy and food commission. In 4 States the functions are divided as follows: In Minnesota, New York, and Virginia the enforcement of the food laws is intrusted to the department of agriculture, while the control of drugs is a function of the State pharmacy board. In Pennsylvania the control of drugs is a responsibility of the State department of health; the department of agriculture has charge of food. In Mississippi the enforcement of the food and drug laws is a function of the department of chemistry, and in Nevada it is under the State university. Of the 19 State departments of health having jurisdiction over both branches of service, 12 operate separate bureaus, for each of which there is a budget. The health department of the remaining seven States vary as to procedure: Delaware delegates the responsibility to the bureau of sanitary engineering, Arizona and Vermont to the director of the State health laboratory, Idaho to the commissioner of public welfare, and New Hampshire to the chief of the division of chemistry and sanitation. Food and drug laws have not been enacted in New Mexico on a scale to approach the customary basis, but such legal responsibility as does exist rests with the State department of health. West Virginia had adopted laws relating to food and drugs and placed responsibility for their enforcement on the State department of health; it is, however, not an active function in this State. Table 71 indicates in each State the branch of government and subdivision thereof which is responsible for the enforcement of food and drug laws.

TABLE 71.—*Food and drug laws enforced by—*

Alabama.....	Department of agriculture.
Arizona.....	Department of health—State laboratory.
Arkansas.....	Department of mines, manufacture, and agriculture.
California.....	Department of public health—Bureau of food and drugs.
Colorado.....	Department of health—Division of food and drugs.
Connecticut.....	State dairy and food commission.
Delaware.....	Department of health—Bureau of engineering.
Florida.....	Department of agriculture.
Georgia.....	Department of agriculture.
Idaho.....	Department of public welfare—Bureau of food and drugs.
Illinois.....	Department of agriculture.
Indiana.....	Department of health—Division of food and drugs.
Iowa.....	Department of agriculture.

TABLE 71.—*Food and drug laws enforced by*—Continued

Kansas.....	Department of health—Division of food and drugs.
Kentucky.....	Department of health—Bureau of foods, drugs, and hotels.
Louisiana.....	Department of health—Bureau of foods and drugs.
Maine.....	Department of agriculture.
Maryland.....	Department of health—Bureau of food and drugs.
Massachusetts.....	Department of public health—Division of food and drugs.
Michigan.....	Department of agriculture.
Minnesota.....	Department of agriculture for food; State board of pharmacy for drugs.
Mississippi.....	Department of chemistry.
Missouri.....	Department of pure food and drugs.
Montana.....	Department of health—Division of food and drugs.
Nebraska.....	Department of agriculture.
Nevada.....	Bureau of food and drugs under the State university.
New Hampshire.....	Department of health—Division of chemistry and sanitation.
New Jersey.....	Department of health—Bureau of food and drugs.
New Mexico.....	No food and drugs law. Duties assumed by the bureau of health—Division of sanitary engineering and sanitation.
New York.....	Department of agriculture and markets for food; Department of education—State board of pharmacy for drugs.
North Carolina.....	Department of agriculture.
North Dakota.....	Food and drug commission.
Ohio.....	Department of agriculture.
Oklahoma.....	Department of health—Bureau of pure food, drugs and sanitary inspections.
Oregon.....	State dairy and food commission.
Pennsylvania.....	Department of agriculture for food; Department of health—Bureau of drug control for drugs.
Rhode Island.....	Food and drug commission.
South Carolina.....	Department of agriculture, commerce, and industries.
South Dakota.....	Department of agriculture.
Tennessee.....	Department of agriculture.
Texas.....	Department of health—Bureau of food and drugs.
Utah.....	State board of agriculture.
Vermont.....	Department of health—Laboratory of hygiene.
Virginia.....	Department of agriculture for food; State board of pharmacy for drugs.
Washington.....	Department of agriculture.
West Virginia.....	Department of health—Central administration.
Wisconsin.....	Department of agriculture.
Wyoming.....	Department of agriculture.

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TABLE 72.—*Food and drugs, 1915, 1925, and 1930*

State	Bureau or division in charge in 1930	Total appropriation			Personnel		Salary of director	
		1915	1925	1930	1925	1930	1925	1930
California.....	Bureau of food and drugs.....	\$29,000	\$34,342	\$41,565	¹ 11	13	\$3,600	\$4,000
Colorado.....	Division of food and drugs.....	9,708	8,900	10,700	5	5	2,500	2,500
Indiana.....	do.....	20,000	30,000	60,000	10	² 16	2,500	3,750
Kansas.....	do.....	16,200	16,400	15,400	6	6	2,000	2,000
Kentucky.....	Bureau of foods, drugs, and hotels.....	20,095	29,367		8	11	2,400	3,000
Louisiana.....	Bureau of food and drugs.....	29,424	(³)		30	36	2,600	3,600
Maryland.....	do.....	32,316	39,683		14	15	3,480	4,000
Massachusetts.....	Division of food and drugs.....	32,500	73,786	69,110	30	28	4,300	4,800
Montana.....	do.....		4,184	7,199	1	2	3,000	2,700
New Jersey.....	Bureau of food and drugs.....		(³)	(³)	10	11	3,900	4,500
Oklahoma.....	Bureau of pure food, drugs and sanitary inspection.....	12,500	50,400	13,200	13	7	2,400	2,400
Pennsylvania.....	Bureau of drug control.....		27,500	22,674	8	8	4,260	4,380
Texas.....	Bureau of food and drugs.....		25,500	29,880	6	12	3,000	3,000

¹ Several part-time laboratory helpers in addition.

² Includes the department of milk and dairy inspection.

³ Budgets not allotted by bureaus.

Table 72 shows appropriations, personnel, and salary of director for each of the 12 States having a separate budget for the enforcement of food and drug laws as an activity of the State department of health in 1915, 1925, and 1930. The bureau of drug control in Pennsylvania is also included.

FOOD AND DRUG LABORATORIES

Although the chapter regarding State health laboratories has recorded the food and drug laboratories operated by State departments of health, they are listed below for the information of those whose interest may be confined largely to the activities of the health department in connection with food and drugs. In the following six States food and drug laboratories are operated as an activity of the food and drug divisions: California, Indiana, Kansas, Louisiana, Massachusetts, and Montana.

ACTIVITIES

Table 73 indicates whether or not the State department of health is responsible for the enforcement of laws concerning the medical examination of food handlers; the examination of food for adulteration; the inspection of hotels, bakeries, slaughterhouses, and cold-storage warehouses; and the prevention of shellfish pollution. Likewise it indicates for each State the health department's ruling on milk laws relative to pasteurization, tuberculin testing of cows, laboratory examination of milk, and inspection of dairies.

SHELLFISH SANITATION

Responsibility for the enforcement of laws relating to shellfish has been placed with the health departments of 26 States. Practically every State which engages in the shellfish industry has adopted sanitary regulations. Other States, as a rule, have adopted regulations regarding the handling and shipping of shellfish. It is noted in Table 73 that in 6 States the responsibility is delegated to the bureau of food and drugs, in 16 to the bureau of sanitary engineering, and in 4 it is variously delegated.

MILK LAWS

Laws relating to the control of milk supplies place the responsibility for their enforcement with the department of health in 18 States, the department of agriculture cooperating with 7 of them; with the department of agriculture in 17 States, the department of health cooperating with 4 of them; with the departments of health and agriculture in 2 States; with the State dairy and food commission in 7 States; with the department of agriculture and the State food and drug commission in 1 State; with the State livestock sanitary board in 1 State; and with the State university in 1 State. Only 1 State has no laws relating to milk supplies.

TABLE 73.—Activities concerned with the enforcement of food and drug laws

State	Enforcement of laws by the State department of health									
	Medical examination of food handlers	Inspection of—			Prevention of pollution of shellfish	Milk supplies ¹	Pasteurization	Tuberculin testing of cattle	Laboratory examination of milk	Inspection of dairies
		Food for adulteration	Hotels, bakeries, etc.	Slaughter-houses						
Alabama.....	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Arizona.....	No	Yes	No	No	Yes	Yes	No	No	Yes	No
Arkansas.....	No	Yes	Yes	Yes	No	No	No	No	No	Yes
California.....	No	Yes	No	No	Yes	No	No	No	No	No
Colorado.....	No	No	Yes	Yes	No	No	No	No	Yes	No
Connecticut.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Delaware.....	No	No	No	No	Yes	Yes	No	No	No	No
Florida.....	No	No	No	No	No	No	No	No	No	No
Georgia.....	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Idaho.....	No	No	No	No	Yes	No	Yes	No	Yes	No
Illinois.....	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes
Indiana.....	No	No	No	No	Yes	No	No	No	No	No
Iowa.....	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No
Kansas.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Kentucky.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Louisiana.....	No	No	No	No	No	No	No	No	No	No
Maine.....	Yes ⁷	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Maryland.....	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Massachusetts.....	No	No	No	No	No	No	No	No	No	No
Michigan.....	No	No	Yes	No	No	Yes	Yes	No	Yes	No
Minnesota.....	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Mississippi.....	No	No	No	No	No	No	Yes	No	No	No
Missouri.....	No	Yes	Yes	No	No	No	No	No	No	No
Montana.....	No	No	No	No	No	No	No	No	No	No
Nebraska.....	No	No	No	No	No	No	No	No	No	No
Nevada.....	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
New Hampshire.....	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
New Jersey.....	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
New Mexico.....	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No
New York.....	No ¹¹	No	No	No	No	No	No	No	No	No
North Carolina.....	No	No	No	No	No	No	No	No	No	No
North Dakota.....	No	No	No	No	No	No	No	No	No	No
Ohio.....	No	Yes	Yes	Yes	No	No	No	No	No	No
Oklahoma.....	No	No	No	No	Yes	Yes	No	No	No	No
Oregon.....	No	No	No	No	No	Yes	No	No	No	No
Pennsylvania.....	Yes	No	No	No	No	Yes	Yes	No	Yes	Yes

[illegible]

¹ See table 74, p. 144.

¹ See table 7², p. 144.
² Under the bureau of inspection.
³ Under sanitary engineering.
⁴ Department of agriculture cooperates.

Under communicable diseases.

Department of health cooperates.

For oyster shuckers only.

*** Bakeries but not hotels and restaurants.**

• Jointly with the department of agriculture.

10 Under the bureau of chemistry.

11 Handlers of milk only.

12 Under central administration.

TABLE 74.—*State department charged with the enforcement of the milk laws*

Alabama.....	Department of health—Bureau of inspection.
Arizona.....	Dairy commission.
Arkansas.....	Department of health—Bureau of sanitary engineering and inspection.
California.....	Department of agriculture.
Colorado.....	State dairy commission.
Connecticut.....	State dairy and food commission.
Delaware.....	Department of health—Bureau of engineering. Department of agriculture cooperates.
Florida.....	Department of agriculture.
Georgia.....	Department of agriculture.
Idaho.....	Department of public welfare—Bureau of sanitary engineering.
Illinois.....	Department of agriculture—Department of health cooperates through division of sanitary engineering.
Indiana.....	Department of health—Division of food and drugs.
Iowa.....	Department of agriculture.
Kansas.....	State dairy commission—Department of health cooperates through the division of food and drugs.
Kentucky.....	Department of health—Bureau of foods, drugs, and hotels.
Louisiana.....	Department of health—Bureau of food and drugs.
Maine.....	Department of agriculture.
Maryland.....	Department of health—Bureau of food and drugs. Department of agriculture cooperates.
Massachusetts.....	Department of agriculture and Department of public health—Division of food and drugs.
Michigan.....	Department of agriculture.
Minnesota.....	State dairy and food department—Department of health cooperates through its division of sanitation.
Mississippi.....	Department of health—Bureau of sanitary engineering.
Missouri.....	Department of health—Division of sanitary engineering. Department of agriculture cooperates.
Montana.....	State livestock sanitary board.
Nebraska.....	Department of agriculture.
Nevada.....	Bureau of food and drugs in State university.
New Hampshire.....	Department of health—Division of chemistry and sanitation. Department of agriculture cooperates.
New Jersey.....	Department of health—Bureau of food and drugs.
New Mexico.....	Duties assumed by the division of sanitary engineering and sanitation. State dairy commission cooperates.
New York.....	Department of agriculture and markets and department of health—Division of sanitation.
North Carolina.....	No State laws regarding milk supplies.
North Dakota.....	State food and drug commission.
Ohio.....	Department of agriculture.
Oklahoma.....	Department of agriculture—Department of health cooperates through the bureau of pure food, drugs, and sanitary inspection.
Oregon.....	State dairy and food commission.
Pennsylvania.....	Department of health—Bureau of milk control. Department of agriculture cooperates.

TABLE 74.—*State department charged with the enforcement of the milk laws—Con.*

Rhode Island.....	Department of agriculture and State food and drug commission.
South Carolina.....	Department of health—Bureau of sanitary engineering.
South Dakota.....	Department of agriculture.
Tennessee.....	Department of agriculture.
Texas.....	Department of health—Bureau of sanitary engineering and bureau of food and drugs.
Utah.....	State board of agriculture.
Vermont.....	Department of health—Laboratory of hygiene. Department of agriculture cooperates.
Virginia.....	Department of agriculture.
Washington.....	Department of agriculture.
West Virginia.....	Department of health—Division of sanitary engineering. Department of agriculture cooperates.
Wisconsin.....	Department of agriculture.
Wyoming.....	Department of agriculture.

Table 74 shows for each State which branch of government is responsible for the enforcement of milk laws. Where the work devolves upon the State department of health, the bureau or division responsible for conducting the work is designated. Of the 20 States entirely or partly responsible for the enforcement of the milk laws, 11 delegate this activity to the bureau or division of sanitary engineering, 6 to the bureau or division of food and drugs, 1 to the bureau of inspection, 1 to the bureau of milk control, and 1 to the State laboratory of hygiene.

Pennsylvania maintains a separate bureau for milk control which had an appropriation of \$20,000 in 1930 and a personnel consisting of a chief, eight district milk-control officers, a secretary, and two clerks. This bureau was created in 1930 to promote the distribution of clean, safe milk, and to increase its consumption. Questions of quality or adulteration are handled by the department of agriculture.

Louisiana maintains a special service consisting of a veterinarian and an assistant to carry out the rules and regulations concerning the testing of dairy cattle.

RESTAURANT HYGIENE

Alabama has established a bureau of inspection to investigate hotels, meat markets, oyster beds, milk supplies, etc. Minnesota maintains a separate division for the inspection and licensing of hotels, restaurants, and boarding houses. Under the bureau of communicable diseases, Pennsylvania maintains a section devoted to restaurant hygiene. This section is charged with the enforcement of the laws concerning the certification of persons handling food or drink, and the condition of dishes or utensils in eating places. Wisconsin has a separate appropriation for the licensing of hotels and restaurants. The appropriation, personnel, and salary of the director for restaurant hygiene is given in table 75 for 1925 and 1930.

TABLE 75.—*Restaurant hygiene, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alabama.....	Bureau of inspection.....	\$16,810	\$53,730	6	14	\$3,300	\$4,300
Minnesota.....	Division of hotel inspection.....		38,027		11		3,600
Pennsylvania.....	Bureau of communicable diseases— section of restaurant hygiene.	(1)	(1)	8	6	2,520	3,100
Wisconsin.....	Hotel and restaurant division.....		32,000		7		3,000

¹ Under communicable diseases.

14. MISCELLANEOUS BUREAUS OR DIVISIONS

In addition to the various bureaus or divisions of the State departments of health that have already been discussed, there are a few miscellaneous bureaus which can not be classified under the heads already described.

INDUSTRIAL HYGIENE

In 1930 four States, Connecticut, Michigan, Mississippi, and Ohio, had separate bureau or division of industrial hygiene. In addition, Indiana maintains a division of housing and industrial hygiene. (See Table 50.) The work in great part consists of investigations in relation to industrial hygiene and industrial hazards, together with a general educational program.

Table 76 gives the name of the bureau, total appropriation, number of persons employed, and salary of the director for 1925 and 1930.

TABLE 76.—*Industrial hygiene, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appropriation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Connecticut.....	Division of occupational diseases.....		\$13,487		3		\$4,750
Michigan.....	Bureau of industrial hygiene.....		4,700		¹ 2		4,500
Mississippi.....	do.....	\$5,200	5,800	2	2	\$2,400	3,000
Ohio.....	Division of industrial hygiene.....	6,563	6,400	3	3	3,000	3,300

¹ Officials included whose time is devoted to more than 1 activity.

COSMETOLOGY

Iowa maintains a division of cosmetology and a division of barbering for the purpose of sanitary inspections in connection with barber shops and beauty parlors. Wisconsin has established a barber and beauty-parlor division to examine and license barbers and beauty-parlor managers and to inspect barber shops as to sanitation and compliance with the rules and regulations governing their operation. Table 77 gives the appropriation, personnel, and salary of the director for these divisions in 1930.

TABLE 77.—*Cosmetology, 1930*

State	Division in charge	Total ap- propria- tion	Person- nel	Salary of director
Iowa.....	{Division of cosmetology.....	(1)	3	(2)
Wisconsin.....	{Division of barbering.....	(1)	4	(2)
	Barber and beauty-parlor division.....	\$32,200	8	\$3,300

¹ Necessary expenses not to exceed the fees received.² No director.

Eight States have other activities under their control, which could not be classified. Under the division of preventable diseases California maintains a section for the inspecting and licensing of canneries, engaged in the canning of agricultural food products. In 1927, fish and fish products were added. Idaho has a bureau of eugenics consisting of a board of six members who pass upon cases presented for sterilization. In Indiana the law requires the testing of all State institution and mine scales once a year. In Iowa all licensees granted licenses by the health department are investigated. In Louisiana an inspection fee of one-eighth of 1 cent per gallon of gasoline consumed is charged and this sum is paid into the general fund of the State treasury. The life extension bureau in North Carolina conducts demonstration clinics for physicians in the technique of periodical examinations of the apparently healthy person and provides lectures for the lay public on the importance of such medical examinations. Ohio has a division of hygiene which includes (1) the bureau of tuberculosis, (2) the bureau of hospitals, and (3) the bureau of dental hygiene. Pennsylvania maintains a bureau of inspection to investigate and prosecute violations of laws.

The details concerning the name of the bureaus, amount appropriated, number of persons employed and salary of the director of these various bureaus or divisions for 1925 and 1930 are given in Table 78.

TABLE 78.—*Miscellaneous bureaus or divisions, 1925 and 1930*

State	Bureau or division in charge in 1930	Total appro- priation		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
California.....	Division of preventable diseases— cannery inspection.	(1)	\$74,360	14	19	\$900	\$3,800
Idaho.....	Bureau of eugenics.....		2,600		1		(2)
Indiana.....	Weights and measures.....	\$10,000	20,000	5	5	\$1,000	5,400
Iowa.....	Division of law enforcement.....		2,700		1		2,700
Louisiana.....	Oil inspection service.....	48,934	(3)	26	15	2,600	2,400
North Carolina.....	Bureau of life extension.....		11,600		2		2,400
Ohio.....	Division of hygiene.....	9,967	19,780	4	3	4,000	4,300
	Bureau of hospitals.....		(3)		2		3,000
Pennsylvania.....	Bureau of inspection.....		19,857		7		4,000

¹ Funds derived from fees.² No director.³ Director of division of food and drugs also.⁴ Plus necessary traveling expenses.⁵ No allotments made by bureaus.⁶ Under the division of hygiene.

15. SUMMARY TABLES

Table 79 summarizes by States the total amount of the 1930 appropriation, exclusive of tuberculosis sanatoria funds, given by the State legislature for certain bureaus or divisions of the State department of health. Table 80 gives by States the percentage of the total State legislative appropriation allotted to these bureaus or divisions. In Table 81 the 1930 salaries of the director of certain bureaus or divisions of the State departments of health are listed and Table 82 gives the average arithmetic salary and the salary range as based on the 1930 figures for the executive officer and the directors of certain bureaus or divisions.

The arithmetic average for the salary of the State health executive is \$5,665. Eighteen of the executive officers receive a salary greater than this amount as follows:

- 6 receive between \$6,000 and \$7,000.
- 7 receive between \$7,000 and \$8,000.
- 2 receive \$8,000.
- 2 receive \$10,000.
- 1 receives \$12,000.

The arithmetic average for the salary of an epidemiologist is \$4,282 for 33 States. Fifteen of these receive an amount greater than the arithmetic average as follows:

- 8 receive between \$4,300 and \$5,000.
- 5 receive between \$5,000 and \$6,000.
- 1 receives \$6,000.
- 1 receives \$7,500.

Seventeen directors of vital statistics receive a salary larger than \$3,538 which is the arithmetic average for 31 directors in 1930. They are as follows:

- 5 receive between \$3,500 and \$4,000.
- 6 receive between \$4,000 and \$4,500.
- 2 receive between \$4,500 and \$5,000.
- 1 receives \$5,000.
- 3 receive \$5,500.

TABLE 79.—Appropriations¹ from State legislatures to certain bureaus or divisions of the State departments of health in 1930

State	Executive office	County health work ²	Communicable diseases	Venereal-disease control	Tuber-culosis control	Vital statistics	Hygienic laboratory	Sanitary engineering	Child hygiene	Public-health nursing	Food and drugs
Alabama	\$51,225	\$233,029	\$86,810	-----	-----	\$40,800	\$68,504	\$62,775	\$22,940	-----	-----
Arizona	21,400	-----	2,850	-----	-----	(³)	8,940	(⁴)	(⁵)	-----	-----
Arkansas	11,800	14,900	(⁶)	-----	-----	33,900	6,120	23,080	(⁶)	-----	-----
California	46,870	-----	26,000	-----	-----	20,610	26,330	28,725	20,840	\$15,805	\$41,565
Colorado	2,100	-----	3,200	\$23,950	-----	4,700	7,100	5,500	(⁷)	-----	-----
Connecticut	31,500	-----	27,507	-----	\$20,000	20,723	73,687	31,187	34,660	-----	-----
Delaware	12,000	-----	(⁸)	20,000	3,000	2,000	9,000	5,000	33,000	25,025	-----
Florida	31,945	-----	44,080	-----	-----	57,000	43,940	33,800	47,200	-----	-----
Georgia	22,500	5,300	(⁹)	-----	10,000	28,000	29,000	14,200	36,000	-----	-----
Idaho	11,750	-----	(¹⁰)	-----	-----	28,000	10,400	3,000	5,000	-----	-----
Illinois	72,835	-----	110,278	7,525	79,865	48,699	115,134	70,960	81,190	-----	-----
Indiana	36,000	-----	25,000	-----	-----	14,000	21,500	30,000	45,000	9,000	60,000
Iowa	42,400	-----	2,200	-----	-----	8,000	(⁹)	22,525	10,000	-----	15,400
Kansas	7,500	7,500	10,700	-----	1,050	18,000	10,450	25,106	17,141	-----	17,065
Kentucky	28,206	4,974	4,023	-----	20,000	12,742	9,226	(¹⁰)	(¹⁰)	-----	-----
Louisiana	(¹⁰)	-----	(¹¹)	-----	-----	(⁹)	(¹⁰)	(¹⁰)	(¹⁰)	-----	-----
Maine	60,080	114,000	60,711	-----	14,170	22,436	54,870	51,859	29,580	-----	39,633
Maryland	31,155	115,393	92,500	-----	-----	(¹²)	182,275	93,000	14,586	-----	69,110
Massachusetts	43,650	-----	39,300	129,360	44,700	35,600	185,470	24,600	94,700	-----	-----
Michigan	51,630	28,400	84,534	-----	-----	22,404	(¹⁴)	33,248	56,900	-----	-----
Minnesota	68,745	-----	5,800	-----	-----	12,000	16,400	10,800	42,700	-----	-----
Mississippi	20,700	95,804	33,189	-----	-----	32,000	21,000	25,000	27,500	-----	-----
Missouri	20,000	21,811	(¹⁰)	-----	-----	3,916	10,538	6,781	35,750	-----	7,199
Montana	12,980	-----	3,500	-----	-----	(¹⁰)	(¹⁰)	(¹⁰)	(¹⁰)	-----	-----
Nebraska	(¹⁰)	-----	(¹⁰)	-----	-----	(¹⁰)	(¹⁰)	(¹⁰)	(¹⁰)	-----	-----
Nevada	5,100	-----	(¹⁰)	-----	-----	(¹⁰)	(¹⁰)	(¹⁰)	(¹⁰)	-----	-----
New Hampshire	3,750	-----	6,000	-----	-----	(¹⁰)	17,300	(¹⁰)	21,000	-----	-----

¹ Exclusive of tuberculosis-sanatoria funds.² Only those amounts listed which are included in the total State legislative appropriation.³ Under central administration.⁴ Under State public-health laboratory.⁵ Under communicable-disease control.⁶ Under county health units.⁷ Under the department of public instruction.⁸ Under the State university.⁹ Does not include \$18,000 for the laboratory at Lexington.¹⁰ No specific allotment by bureaus or divisions.¹¹ District health centers.¹² Under the division of social hygiene.¹³ Under the secretary of state.¹⁴ Three separate laboratories under separate divisions.¹⁵ No activities.

TABLE 79.—*Appropriations from State legislatures to certain bureaus or divisions of the State departments of health in 1930—Continued*

State	Executive office	County health work	Communicable diseases	Venereal disease control	Tuber- culosis control	Vital statistics	Hygienic laboratory	Sanitary engineering	Child hygiene	Public-health nursing	Food and drugs
New Jersey.....	(10) \$8,300	.....	.....	.....	\$28,935	(10) \$8,500	(10) \$7,300	(10) \$4,700	\$122,023	.....	.....
New Mexico.....	624,576	.....	.....	.....	.....	102,722	680,215	95,294	4,600	.....	.....
New York.....	50,645	\$88,538	\$41,437	\$55,514	57,437	29,630	104,760	87,320	97,136	\$221,660	.....
North Carolina.....	10,500	.....	7,157	.....	.....	5,400	.....	3,425	50,580	.....	.....
North Dakota.....	112,682	250,000	2,875	.....	.....	35,140	71,100	66,940	11,750	.....	.....
Ohio.....	59,080	35,000	44,100	7,000	14,000	8,700	17,200	3,000	16,500	25,820	.....
Oklahoma.....	17,000	.....	5,000	.....	10,800	3,700	8,200	3,700	31,100	.....	\$13,200
Oregon.....	52,760	.....	(1) 320,774	41,242	30,635	119,592	76,147	211,340	12,250	284,344	22,674
Pennsylvania.....	51,505	.....	(1) 54,220	.....	8,460	(1) 8,305	28,963	21,950	54,555	.....	.....
Rhode Island.....	10,570	49,788	(1) 4,440	.....	.....	5,070	1,630	13,390	9,970	.....	.....
South Carolina.....	11,681	2,400	4,440	.....	.....	18,800	11,688	3,350	8,861	.....	.....
South Dakota.....	20,100	142,800	29,500	45,000	.....	18,800	33,920	25,650	60,100	.....	.....
Tennessee.....	34,450	.....	(1) 2,400	.....	.....	19,750	30,770	33,600	59,570	.....	29,880
Texas.....	(10) 22,000	.....	(10) 10,975	2,000	.....	(10) 33,935	16,000	(10) 8,000	(10) 5,000	.....	.....
Utah.....	22,580	95,000	(1) 6,380	64,420	2,500	(1) 7,568	26,820	22,085	57,380	.....	.....
Vermont.....	13,284	.....	.....	.....	.....	13,700	10,070	8,736	(10) 17,500	3,963	.....
Virginia.....	22,335	40,050	(10) 13,300	.....	11,000	13,700	16,315	16,200	31,000	20,000	.....
West Virginia.....	55,500	.....	(1) 13,300	.....	36,370	17,560	9,000	29,000	(1) 31,000	.....	.....
Wisconsin.....	15,000	.....	(1) 13,300	.....	.....	(1) 17,560	(10) 9,000	(10) 29,000	(1) 31,000	.....	.....
Wyoming.....	.....	.....	(1) 13,300	.....	.....	(1) 17,560	(10) 9,000	(10) 29,000	(1) 31,000	.....	.....

1 Under central administration.

2 Under State public-health laboratory.

3 Under the State university.

4 No specific allotment by bureaus or divisions.

5 Under the division of social hygiene.

6 No activities.

7 Under public-health nursing.

8 No State public-health laboratory.

TABLE 80.—Appropriation ¹ from State legislature for health work and per cent of the total appropriation allotted to certain bureaus or divisions of the State department of health in 1930, by States

States	Total ap- propria- tion	Exec- utive office	County health work	Commu- nicable diseases	Tuber- culosis control	Veneral diseases	Public- health laboratory	Vital statistics	Sani- tary en- gineering	Child hygiene	Public- health nursing	Public- health education	Food and drugs
Alabama.....	\$635,813	8.1	36.7	13.7			10.5	6.4	9.9	3.6			
Arizona.....	30,340	64.5		9.4			26.9	(¹)	(¹)	(¹)			
Arkansas.....	86,400	13.7	17.2	(¹)			7.1	39.2	26.7	(¹)	4.1		
California.....	386,550	12.1		7.5	6.2		6.8	5.3	7.4	5.4			10.8
Colorado.....	65,550	3.2		4.9			10.8	7.2	8.5	(¹)	7.7		16.3
Connecticut.....	324,309	9.7		8.5			22.7	6.4	9.6	10.7		2.2	
Delaware.....	84,000	14.3		(¹)	23.8		10.7	2.4	6.0	39.3			
Florida.....	267,965	11.9		16.4			16.4	21.3	12.6	17.6			
Georgia.....	165,000	13.6	3.2	(¹)			17.6	17.0	8.6	21.8			
Idaho.....	37,750	31.1		(¹)			7.9	7.5	7.9	13.2			
Illinois.....	642,261	11.3		17.2	1.2		27.5	11.0	11.0	12.6		2.6	
Indiana.....	266,500	13.5		9.4			17.9	5.3	11.3	16.9	3.4		22.5
Iowa.....	81,525	52.0		2.7			8.1	9.8	27.6	(¹)			14.2
Kansas.....	108,458	6.9	6.9	9.9			9.6	16.6	23.1	9.2			11.8
Kentucky.....	145,400	19.4	3.2	2.8			6.3	8.8	3.6	11.8			
Louisiana.....	306,000	(¹)		(¹)			(¹)	(¹)	(¹)	(¹)			
Maine.....	145,500	41.3	27.5	14.1			9.7	(¹)	12.1	20.3			9.2
Maryland.....	429,692	7.3	26.9	11.1	15.6		5.4	5.2	3.4	11.4			8.3
Massachusetts.....	829,995	5.3		7.7			22.0	(¹¹)	11.2	11.1		3.5	
Michigan.....	512,900	10.1	5.5	30.7			36.2	6.9	4.8	15.5			
Minnesota.....	275,300	21.3		2.9			(¹¹)	8.1	12.1	13.7			
Mississippi.....	200,800	10.3	47.7	17.6			8.2	6.0	5.4	18.9			
Missouri.....	188,750	10.6	11.6	5.8			11.1	17.0	13.2	24.8			11.9
Montana.....	60,400	21.5		(¹)			17.4	6.5	(¹)	(¹)			
Nebraska.....	31,000	(¹)		(¹)			(¹)	(¹)	(¹)	(¹)			
Nevada.....	5,100	100.0		(¹)			(¹)	(¹)	(¹)	(¹)			
New Hampshire.....	50,150	7.5		12.0			34.5	(¹)	41.9	29.5			
New Jersey.....	416,978	(¹)		(¹)			6.9	24.6	13.6	13.3			
New Mexico.....	34,500	24.1		(¹)			21.2	4.5	4.2	4.3		2.2	
New York.....	2,273,693	27.5		1.8			29.9	6.0	17.8	10.3	9.7	2.3	
North Carolina.....	491,470	10.3	18.0	1.5	2.4		21.3	15.9	10.0	34.6			
North Dakota.....	33,850	30.9		8.5			(¹)	5.4	10.3	2.5			
Ohio.....	652,823	17.3	38.3	6.8	1.1		10.9	5.4	4.0	15.8			6.7
Oklahoma.....	196,950	30.0	17.8	2.5			8.7	4.4	1.5			2.0	

¹ Exclusive of tuberculosis-sanatoria funds.

² Under central administration.

³ Under public-health laboratory.

⁴ Under communicable diseases.

⁵ Under county health units.

⁶ Under department of public instruction.

⁷ Under State university.

⁸ No specific allotments by bureaus or divisions.

⁹ District health centers.

¹⁰ Under the division of social hygiene.

¹¹ Under the secretary of state.

¹² Three laboratories under separate divisions.

¹³ No activities.

TABLE 80.—*Appropriation from State legislature for health work and per cent of the total appropriation allotted to certain bureaus or divisions of the State department of health in 1930, by States—Continued*

States	Total ap- propria- tion	Exec- utive office	County health work	Commu- nicable diseases	Tuber- culosis control	Veneral diseases	Public- health laboratory	Vital statistics	Sani- tary en- gineering	Child hygiene	Public- health nursing	Public- health education	Food and drugs
Oregon.....	50,512	33.7	---	(1)	---	7.5	16.2	7.3	7.3	24.3	18.0	0.5	1.4
Pennsylvania.....	1,577,120	3.3	---	20.3	2.6	1.9	4.8	7.6	13.4	3.5	---	---	---
Rhode Island.....	129,488	40.0	---	(2)	---	6.5	18.4	(3)	17.0	18.3	---	---	---
South Carolina.....	171,863	6.2	29.0	31.5	---	---	7.3	4.8	7.8	5.8	---	---	---
South Dakota.....	51,088	22.9	4.7	8.7	---	---	22.9	9.9	6.6	17.4	---	---	---
Tennessee.....	383,070	5.2	37.2	7.7	11.7	---	8.9	4.9	6.7	15.7	---	1.9	14.0
Texas.....	213,520	16.1	---	(4)	---	---	14.4	9.2	15.7	27.9	---	.7	---
Utah.....	33,628	(5)	---	(6)	---	---	(4)	(4)	(4)	(4)	---	---	---
Vermont.....	45,000	48.9	---	(7)	4.4	---	35.6	(4)	(4)	11.1	---	---	---
Virginia.....	352,645	6.4	26.9	3.1	18.3	.7	7.3	9.6	6.3	16.3	---	3.8	---
Washington.....	50,000	26.6	---	12.8	---	---	20.1	15.1	17.5	(4)	7.9	---	---
West Virginia.....	140,800	15.9	28.4	(10)	---	7.8	11.6	9.7	11.5	12.4	---	2.6	---
Wisconsin.....	352,313	15.8	---	3.8	---	10.3	2.6	5.0	8.2	8.8	5.7	---	---
Wyoming.....	15,000	100.0	---	(2)	---	---	(15)	(3)	(3)	(3)	---	---	---

1 Under central administration.

2 Under public-health laboratory.

3 No specific allotments by bureaus or divisions.

10 Under the division of social hygiene.

14 Under public-health nursing.

15 No State public-health laboratory.

TABLE 81.—Salaries of directors of certain bureaus or divisions of State departments of health in 1930, by States

	Executive officer	County health work	Communicable diseases	Tuber- culosis control	Venereal disease control	Vital Statistics	Public health laboratory	Sanitary engineering	Child hygiene	Public health nursing	Public health education	Food and drugs
Alabama.....	\$7,500	\$5,000	\$4,400			\$4,300	\$4,500	\$4,500	\$3,180			
Arizona.....	3,800		4,500			(1) 2,100	3,000	(1) 4,000	(1) 4,000			
Arkansas.....	6,000	4,000	(1) 4,200			3,000	2,500	4,200	(1) 4,000			
California.....	4,000		1,800	\$4,000		(1) 4,200	3,600	3,000	(1) 4,000	\$3,000	\$3,000	\$4,000
Colorado.....	8,000		5,804		(1) \$4,248	(1) 4,200	4,600	4,548	(1) 4,740	3,250	3,098	2,500
Connecticut.....	5,000		(1) 3,600	3,800		(1) 3,600	2,700	3,180	3,900			
Delaware.....	5,000		(1) 3,600			5,000	5,000	3,600	3,600			
Florida.....	7,500	5,000	3,600		7,240	(1) 3,600	(1) 5,000	5,000	2,100			
Georgia.....	3,600		(1) 5,000		2,280	(1) 2,820	4,200	4,800	4,500		4,000	
Idaho.....	7,000		3,300	4,200	6,000	3,200	3,300	3,300	3,700	2,700		3,750
Illinois.....	5,500		4,000			(1) 2,400	(1) 2,400	3,600	(1) 2,500			2,000
Indiana.....	4,000	2,600	3,300			2,500	3,400	2,700	3,600	2,400		3,600
Iowa.....	4,000	4,800	4,000	3,600	3,600	3,000	2,600	3,600	(13) 3,600			
Kansas.....	6,000	(11) 4,500	(12) 4,000			(1) 4,000	3,900	3,800	2,700			
Kentucky.....	7,500		4,000		3,500	(19) 5,500	4,000	4,000	4,000			4,000
Louisiana.....	7,500		6,000	4,200	3,750	(17) 7,000	6,500	6,500	4,800		3,500	4,800
Maine.....	10,000	4,500	7,500			(18) 4,500	7,000	5,000	4,500			
Massachusetts.....	5,400		4,800	5,000		4,000	4,500	4,200	3,300			
Michigan.....	5,000	3,600	4,200			2,100	4,200	3,600	6,000			
Minnesota.....	7,400		4,200									
Mississippi.....												
Missouri.....												

1 The executive officer is the director.

2 The director of the bureau of laboratories is in charge.

3 The epidemiologist is in charge.

4 Under county health units.

5 Formerly received \$2,000. Vetoed in 1925 and now receives salary as director of the division of social hygiene.

6 Under the department of public instruction.

7 Also director of the division of child hygiene. Total salary is \$6,000.

8 The State chemist is the director. Salary listed under sanitary engineering.

9 Under the State university.

10 Total salary is \$3,000, balance being paid by the university.

11 Paid by the U. S. Public Health Service.

12 Collaborating epidemiologist in charge.

13 No director in 1930.

14 The director of the division of social hygiene is in charge.

15 Salary for both the director of bacteriology and the bureau of chemistry is \$4,000.

16 Not under the State department of health.

17 Salary of the director of the division of biological laboratories, \$6,000, and for the division of water and sewage, \$4,800.

18 3 laboratories under separate divisions.

19 Part-time director.

TABLE 81.—Salaries of directors of certain bureaus or divisions of State departments of health in 1930, by States—Continued

	Executive officer	County health work	Communicable disease	Tuberculosis control	Veneral disease control	Vital Statistics	Public health laboratory	Sanitary engineering	Child hygiene	Public health nursing	Public health education	Food and drugs
Montana	\$5,000		\$4,200			\$3,000	\$4,200	\$3,600	\$3,000			\$2,700
Nebraska	4,000		(1)			(1)	(1)	(1)	(1)			
Nevada	2,500		(1)			(1)	(1)	(1)	(1)			
New Hampshire	4,000		2,400			4,500	4,000	2,300	2,300			
New Jersey	6,500		4,500			2,400	3,000	5,000	4,500		\$1,500	4,500
New Mexico	4,000		(1)		\$3,300	5,500	9,000	5,500	5,500			
New York	12,000		5,500	\$5,500	5,500	2,400	3,000	2,400	4,600	\$4,500		
North Carolina	8,000	\$4,600	5,250			1,800	6,000	4,600	3,000			
North Dakota	3,600		3,000			4,000	4,000	5,000	4,000			
Ohio	6,500	3,300	4,300	3,600	3,200	2,400	3,600	3,000	3,000	3,300		
Oklahoma	4,800	4,600	3,600		3,000	(1)	3,000	2,400	2,400			2,400
Oregon	10,000		5,500	4,000	4,380	5,500	5,740	7,500	4,260			4,380
Pennsylvania	6,000		(1)		3,000	(1)	3,000	3,000	3,500			
Rhode Island	5,000	4,400	(1)			(1)	2,625	3,600	2,760			
South Carolina	2,200		2,600			(1)	4,000	3,750	3,600			
South Dakota	5,000	3,600	3,600	3,900	(1)	3,600	4,500	3,600	4,000			
Tennessee	4,500		(2)			4,000	3,000	2,400	(1)			
Texas	4,000		3,600			(1)	3,750	(1)	1,900			
Utah	5,000		3,750	19,600		(1)	5,000	4,500	3,250			
Vermont	7,500	5,000	5,000	3,000	(1)	(1)	3,000	4,200	(1)	2,400	2,500	
Virginia	5,000		5,000		(1)	(1)	3,300	3,700	(1)			
Washington	5,000	4,600	(1)		3,300	(1)	5,400	4,500	3,500			
West Virginia	4,800		3,500			(1)						
Wisconsin	6,540		(1)			(1)						
Wyoming	4,000		(1)			(1)						

1 The executive officer is the director.

2 The director of the bureau of laboratories is in charge.

3 The epidemiologist is in charge.

4 Under the State university.

5 Paid by the U. S. Public Health Service.

6 No director in 1930.

7 The director of the division of social hygiene is in charge.

8 Part-time director.

9 Salary of director of the bureau of bacteriology \$4,800, and of the bureau of chemistry, \$4,500.

10 \$10 per diem and expenses.

11 The assistant health commissioner is the director.

12 The sanitary engineer is the State registrar.

13 Under the division of public health nursing.

14 No State public health laboratory.

The directors of 43 public health laboratories receive an average salary of \$4,133. Of these, 19 receive a salary greater than the average, as follows:

- 11 receive between \$4,200 and \$5,000.
- 4 receive between \$5,000 and \$6,000.
- 2 receive \$6,000.
- 1 receives \$7,000.
- 1 receives \$9,000.

The average arithmetic salary for 43 sanitary engineers in 1930 is \$3,960. Twenty of these receive a salary greater than the average, as follows:

- 13 receive between \$4,000 and \$5,000.
- 5 receive between \$5,000 and \$6,000.
- 1 receives \$6,500.
- 1 receives \$7,500.

The directors of child hygiene receive an average arithmetic salary of \$3,554 in 37 States. Twenty of these receive a salary greater than the average, as follows:

- 6 receive between \$3,500 and \$4,000.
- 12 receive between \$4,000 and \$5,000.
- 1 receives \$5,500.
- 1 receives \$6,000.

TABLE 82.—*Salaries of directors*

Title	Number of States involved	Arithmetic average for salary of director	Salary range
Executive officer.....	48	\$5,665	\$2,500-\$12,000
Epidemiologist.....	33	4,282	1,800-7,500
Director of vital statistics.....	31	3,538	1,800-6,500
Laboratory director.....	43	4,133	2,400-9,000
Sanitary engineer.....	43	3,960	2,300-7,500
Child hygiene.....	38	3,572	1,900-6,000

III. Summaries—State Health Organizations by States

ALABAMA

STATE DEPARTMENT OF HEALTH

Organization.—The organization of the Alabama State Department of Health differs considerably from that of any other State. The medical association of the State forms the State board of health. The governing body of the medical association is composed of a group of physicians consisting of 100 counsellors,⁸ representing the 10 congressional districts of the State, and 143 delegates representing the

⁸ Nominations to fill vacant counsellorships in a given district are made by the counsellors and delegates of the district, said nominees being elected by the association in annual session.

67 component county societies of the medical association. This body elects 10 physicians from the college of counsellors to constitute a State board of censors which acts in the capacity of a State committee of public health. The governor of the State is ex officio a member and chairman of the State committee of public health.

Alabama - Organization of the State Department of Health in 1930

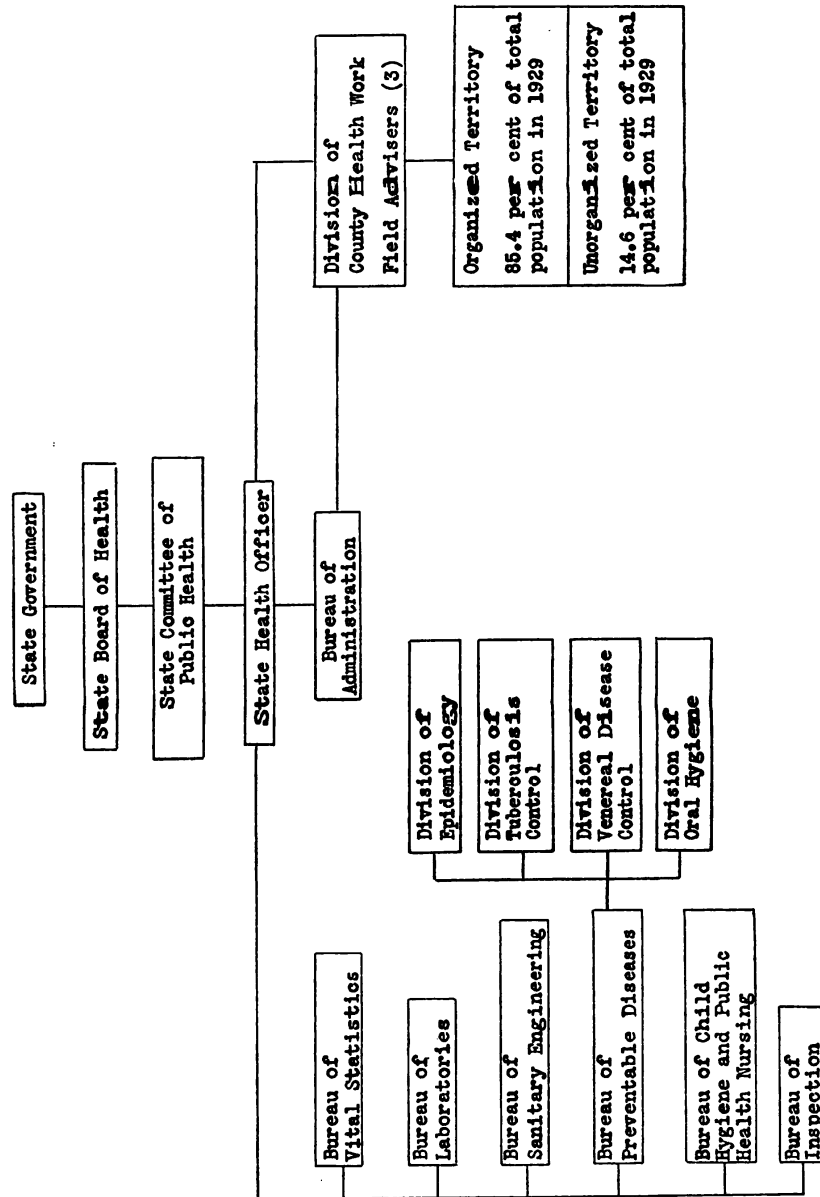


FIGURE 20

Term of office and compensation.—The term of office of the members of the State committee of public health is five years, two members being elected each year. The committee receives no compensation except traveling expenses.

Number of meetings.—Meetings of the State committee of public health are held regularly on the Monday before the second Tuesday

in January and July and on the Monday before the third Tuesday in April. Special sessions may be called by the president of the medical association, the chairman of the State board of censors, or on written request of three members of the board.

Powers of the State committee of public health.—When the State board of health is not in session, the State committee of public health acts as and discharges all the prerogatives and duties of the board, including the adoption and promulgation of rules and regulations. When the committee is not in session, the State health officer acts and reports his actions to the board and committee at their regular meetings. The committee may at any time revoke any action of the State health officer. General policies are determined by the committee.

EXECUTIVE OFFICER

Legal qualifications.—The executive officer of the State committee of public health is known as the State health officer. He must be a citizen of the State and a member of the college of counsellors of the State medical association. He is elected by the State committee of public health and his election is confirmed by the State medical association. He may or may not be a member of the committee.

Term of office and compensation.—The executive officer's term of office is five years, and his annual compensation is \$7,500, plus \$750 for travel.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State board of censors has three functions. It acts as the executive committee of the State medical association, as the State board of medical examiners, and as a State committee of public health.

The exercise of executive and quasi judicial power of the State department of health is centralized in the State committee of public health, which has the right to make and enforce rules and regulations with regard to sanitation in general, public water supplies, milk supplies, communicable diseases, quarantine, nuisances, midwife control, and violations of the medical practice act. Control over sewage disposal is exercised only when a nuisance exists. The supervision of food adulteration is under the State department of agriculture.

APPROPRIATIONS

The legislature makes a flat appropriation to the State department of health. The department has the authority, after submitting budgets to the governor, to distribute the funds among the several bureaus. The 1919 legislature passed a bill for the enlargement and extension of the State department of health. In 1923, \$55,000 was

appropriated for county organization work. The 1927 legislature made the amount of \$2,500 available for each county then organized for full-time service. The legislature meets in January, every four years. The next session will be held in January, 1935. The fiscal year of the health department ends September 30.

BUREAU OF ADMINISTRATION

The general policy of the Alabama State Department of Health is decentralization of activities, and the major part of the health work in the State is done by local health organizations working under central supervision.

Personnel.—The personnel of the division of central administration in 1930 consisted of the State health officer, who, as general executive, carried out the policies of the State department of health and supervised all State and local activities, a secretary, an accountant, a voucher clerk, a supply clerk, and an agent in charge of requisitions.

Civil service.—The employees are not civil service appointees. Changes in the State administration do not affect the personnel of the State department of health.

1937 TABLE 83.—Bureaus of the State department of health in 1930¹
ALABAMA

Bureaus	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$51,225	7	\$7,500	\$19,000	\$26,500
Division of county health work.....	25,000	4	5,000	12,800	17,800
Training for health workers.....	18,000	1	5,000	—	5,000
Bureau of preventable diseases.....	86,810	17	4,400	19,310	23,710
Bureau of vital statistics.....	40,800	21	4,300	21,620	25,920
Bureau of laboratories.....	66,504	30	4,500	39,855	44,355
Bureau of sanitary engineering.....	62,775	16	4,500	30,175	34,675
Bureau of child hygiene and public-health nursing.....	22,940	7	3,180	9,700	12,880
Bureau of inspection.....	53,730	14	4,300	26,330	30,630

¹ Total appropriation, \$1,594,800; total appropriation, exclusive of tuberculosis sanatoria funds, \$1,594,800; State legislative appropriation, \$635,813.

Activities.—The State health officer administers and supervises the activities of all special bureaus. It is his duty to enforce the rules and regulations of the State department of health.

Disbursement of funds.—Funds are disbursed by the State department of health on vouchers approved by the State health officer.

Purchases.—Purchases are made on requisition through the board of administration of the State government. Bids for all supplies are solicited.

Publicity.—Publicity is under the control of the bureau of administration. A weekly message is broadcast over the radio.

Press service.—The newspapers of the State accept all articles furnished by the health department.

Bulletins.—A bulletin is issued every two months by the bureaus of preventable diseases and vital statistics. Pamphlets are distributed from time to time.

Equipment.—The State department of health owns stereopticon and portable motion-picture equipment.

Cooperation.—The State department of health acts as an advisory board in medical matters and in matters of sanitation and public health to all departments of the State.

DIVISION OF COUNTY HEALTH WORK

Personnel.—The staff of the division of county health work in 1930 consisted of a director and three field advisers.⁹

Supervision.—The counties with organized health departments are divided into four districts. In each district a field adviser makes frequent visits to the units composing his territory. The directors of the several bureaus of the State department of health constitute a consulting staff for the county health officers.

County boards of health.—The county boards of health are elected by the county medical societies from their membership. It is the duty of these boards to enforce the health laws of the State in their respective counties and to elect a county health officer who is ex officio health officer of every municipality within the county and who gives all his time to the duties of his office. There are no municipal boards of health. County boards of health and their health officers are subject to supervision and control by the State department of health, and the appointment of the county health officer is subject to the approval of the State committee of public health. The State health officer, with the approval of this committee, may remove the county health officer if he sees fit.

Unorganized counties.—In counties with no organized health departments, the county medical society appoints a part-time medical quarantine officer, who works under the supervision of the State health officer.

Full-time county organizations.—Alabama established its first full-time county health department in 1914. The plan of administration includes the organization in every county of a department to consist of at least three people and in most instances four: A health officer, a nurse, a sanitary inspector, and a secretary. County health units have grown rapidly under this plan. At the close of 1930 there were 53 full-time county health organizations, representing 88.0 per cent of the total population.

Personnel of the full-time units.—In 1930 the units employed a full-time personnel of 57 physicians, 104 nurses, 83 sanitary inspectors, and

⁹ 1 vacancy in the position of field adviser exists at the present time (1930).

113 secretaries and clerks. The work is carried on under the supervision of the field advisers.

Training station.—A training station for health officers under the charge of a director is maintained in Elmore County by the State department of health.

Appropriation.—A special appropriation for county health work of \$55,000 is made by the State legislature. Effective October 1, 1927, \$2,500 was made available to every county appropriating a sum of money sufficient to insure efficient work and a permanent health organization.

BUREAU OF PREVENTABLE DISEASES

This bureau was formed on October 1, 1928, by the union of the bureaus of epidemiology, tuberculosis control, venereal-disease control, and oral hygiene. These former bureaus are now conducted as divisions of the bureau of preventable diseases.

Personnel.—The personnel of this bureau in 1930 consisted of an epidemiologist, a director, an office staff of five secretaries, nine physicians in charge of the free venereal-disease clinics, and two full-time dentists.

Executive authority.—When local health machinery fails to function in an emergency the enforcement of the rules and regulations of the State department of health may be delegated to the epidemiologist by the State health officer.

TABLE 84.—Data on full-time counties operating throughout 1929

ALABAMA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Nonmedical health officers	Inspectors	Nurses	Others
Walker.....	1914	58,549	\$9,600	\$0.16	\$20,364,000	\$0.0005		1		1	1	1
Tuscaloosa.....	1915	63,616	18,720	.29	24,004,000	.0008	Tuscaloosa (9,745)	1	1		2	1
Jefferson.....	1917	417,379	271,331	.65	237,969,000	.0011	Birmingham (249,771)	1		37	37	48
							Bessemer (120,896)					
							Fairfield (10,439)					
Talladega.....	1917	44,830	12,400	.27	18,238,000	.0007						
Lauderdale.....	1918	40,969	15,729	.38	12,852,000	.0012	Florence (11,609)	1		1	2	1
Madison.....	1918	63,962	16,308	.25	23,048,000	.0007	Huntsville (11,172)	1		1	2	1
Sumter.....	1918	26,685	9,591	.35	7,744,000	.0012		1		1	1	1
Calhoun.....	1918	54,806	16,395	.29	22,279,000	.0007	Anniston (21,874)	1		2	2	1
Mobile.....	1919	116,564	39,800	.34	65,677,000	.0006	Mobile (67,527)	2		2	3	1
Montgomery.....	1919	96,225	30,000	.31	46,548,000	.0006	Montgomery (63,813)	2		3	5	3
Etowah.....	1919	61,765	13,200	.21	20,142,000	.0007	Gadsden (23,102)	1		1	1	1
Colbert.....	1919	30,017	11,602	.38	13,435,000	.0009		1		1	1	1
Morgan.....	1920	45,569	14,559	.31	17,839,000	.0008	Decatur (14,508)	1		1	1	1
Baldwin.....	1921	27,525	9,370	.34	11,953,000	.0008		1		1	1	1
Dallas.....	1921	55,052	16,481	.29	21,155,000	.0008	Selma (17,762)	1		2	2	1
Barbour.....	1922	32,463	9,585	.29	7,621,000	.0013		1		1	1	1
Houston.....	1922	45,065	9,598	.21	12,008,000	.0008	Dothan City (15,344)	1		1	1	1
Covington.....	1922	41,127	10,000	.24	11,833,000	.0008		1		1	1	1
Escambia.....	1923	27,351	9,832	.35	9,162,000	.0011		1		1	1	1
Limestone.....	1923	36,282	9,600	.26	11,298,000	.0008		1		1	1	1

TABLE 84.—Data on full-time counties operating throughout 1929—Continued

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel					
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks	Others
Franklin.....	1923	25,035	8,800	.35	7,262,000	.0012		1		1	1	1	
Marshall.....	1924	38,996	9,600	.24	8,796,000	.0011		1		1	1	1	
Marengo.....	1924	36,380	9,000	.24	11,983,000	.0008		1		1	1	1	
Jackson.....	1925	36,692	10,200	.27	10,735,000	.0010		1		1	1	1	
Coffee.....	1925	32,401	10,000	.30	8,241,000	.0012		1		1	1	1	
Lawrence.....	1925	26,674	10,250	.38	5,894,000	.0017		1		1	1	1	
Lee.....	1925	35,737	9,700	.27	11,752,000	.0008	Phenix City (13,019)	1		1	1	1	
Chambers.....	1926	39,496	12,929	.32	11,777,000	.0011		1		1	1	1	
Tallapoosa.....	1926	31,049	9,282	.29	8,281,000	.0011		1		1	1	1	
Elmore.....	1927	33,674	9,000	.26	6,891,000	.0013		1		1	1	1	
Cullman.....	1927	40,513	9,412	.23	10,930,000	.0009		1		1	1	1	
Dale.....	1927	23,125	9,068	.39	7,638,000	.0012		1		1	1	1	
Monroe.....	1927	29,946	9,600	.32	7,009,000	.0014		1		1	1	1	
Washington.....	1928	16,160	7,000	.43	5,529,000	.0013		1		1	1	1	
De Kalb.....	1928	39,529	9,000	.22	10,007,000	.0009		1		1	1	1	
Pickens.....	1928	24,939	7,000	.28	6,508,000	.0011		1		1	1	1	
Wilcox.....	1928	25,500	7,250	.28	6,433,000	.0011		1		1	1	1	
Clarke.....	1928	26,175	7,000	.26	7,113,000	.0010		1		1	1	1	
Cleburne.....	1928	12,928	7,000	.54	3,283,000	.0021		1		1	1	1	
Crenshaw.....	1928	23,584	7,000	.29	3,240,000	.0022		1		1	1	1	
Macon.....	1928	26,711	9,312	.34	6,298,000	.0015		1		1	1	1	
Lowndes.....	1928	23,071	7,000	.30	6,263,000	.0011		1		1	1	1	
Bullock.....	1928	20,761	7,000	.33	5,829,000	.0012		1		1	1	1	
Lamar.....	1928	18,014	7,000	.38	4,686,000	.0015		1		1	1	1	
Blount.....	1928	27,756	7,000	.25	6,444,000	.0011		1		1	1	1	
Conecuh.....	1928	25,340	7,000	.27	6,355,000	.0011		1		1	1	1	
Cherokee.....	1928	20,286	7,000	.34	4,867,000	.0014		1		1	1	1	
Shelby.....	1929	27,488	7,000	.25	11,229,000	.0006		1		1	1	1	
Winston.....	1929	15,476	7,000	.45	3,370,000	.0021		1		1	1	1	
Total.....		2,189,237	797,004	.36	829,812,000	.0010		51	1	75	97	48	51

DIVISION OF EPIDEMIOLOGY

Reports of cases.—Communicable diseases are reported to the State department of health once a week by practicing physicians and county health officers. Midwives, school-teachers, and householders are required to report such cases as have no medical attendant. In full-time county health units the reports are made through the local health organization, which checks the completeness and accuracy of the reports.

Quarantine.—Quarantine measures are under the control of local health officers.

Smallpox vaccination.—There is no state-wide ordinance concerning smallpox vaccination. The matter is handled by local ordinance.

Emergency fund.—There is a State general emergency fund available at the discretion of the governor for use in case of a severe epidemic.

Activities.—The division of epidemiology collects and analyzes morbidity reports and aids the local health organizations in the solution of their epidemiological problems.

DIVISION OF TUBERCULOSIS CONTROL

State program.—The State program for tuberculosis control is one of general education. The director of the division works with the local health organizations to locate cases of tuberculosis and to furnish instruction in combating it.

State sanatoria and dispensaries.—There are no State tuberculosis sanatoria and no dispensaries under State control. Local tuberculosis associations in four counties support sanatoria, but none of these is under State supervision.

DIVISION OF VENEREAL DISEASE CONTROL

State program.—The State places treatment for venereal disease within the reach of every individual needing it, conducts an educational campaign in social hygiene, and spreads propaganda for law enforcement.

Reporting venereal diseases.—Physicians are required to report all cases of venereal disease by number. All patients must submit to treatment. Isolation of cases is provided for, and steps are taken to prevent the spread of the disease.

Clinics.—In 1929 there were, under State supervision, 14 free clinics ¹⁰ and 172 cooperative clinics with unlimited capacity. A fee of not over \$2 per treatment is charged in the cooperative clinics.

Treatments.—The State distributes all drugs and mercurials free of charge to the clinics. During 1929, 54,357 salvarsan treatments and 98,561 other treatments were administered.

DIVISION OF ORAL HYGIENE

The division of oral hygiene was established on January 1, 1928, with one dentist. A second dentist was added in July of that year.

Activities.—At present the program of the division is mainly educational, with concentration on the younger school children. The activities of the division include the appointment of dentists in each county to conduct free examinations of school children; the following up of children with defects to insure corrections; lectures on oral hygiene to, and yearly examination of, all teachers and prospective teachers attending State institutions or any other teacher-training schools; and the distribution of educational material to teachers and parents.

BUREAU OF VITAL STATISTICS

Personnel.—The staff of the bureau of vital statistics in 1930 consisted of a trained full-time director, a chief clerk, a secretary, and 19 assistants.

¹⁰ In 9 of these clinics, part of the salary of the clinicians is derived from funds of the State department of health.

Registration districts.—The registration district is the voting precinct.

Local registrars.—The local registrars are appointed by the State department of health. They receive from the county a fee of 25 cents for each birth or death recorded.

Registration area.—Alabama was admitted to the registration area for deaths in 1925 and to the registration area for births in 1927.

Reporting of deaths.—In 1929 about 95 per cent of all deaths occurring in the State were reported; 10 per cent were reported by physicians, 80 per cent by undertakers, and 10 per cent by others. Deaths must be reported to the local registrar within 72 hours and to the State registrar by the 10th of each month.

Legal standards.—The model law, a revised standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; 70 per cent were reported by physicians, 28 per cent by midwives, and 2 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths after the fifth month.

Blanks and postage.—The State department of health furnishes the blanks for recording the returns, and the local registrars pay the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner or sheriff makes an investigation.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—Physicians are licensed by the State board of medical examiners, midwives by the county boards of health, and embalmers by the State board of embalming.

BUREAU OF LABORATORIES

Personnel.—The personnel of the bureau of laboratories in 1930 consisted of a general director, an assistant director, 6 branch directors, and 21 technicians.

Branch laboratories.—The six branch laboratories are located in strategic points; namely, Anniston, Birmingham, Mobile, Decatur, Selma, and Tuscaloosa. They are financed by the State and local agencies.

Private laboratories.—The State director of the bureau of laboratories has no supervision over private laboratories.

Special laboratories.—No laboratories other than the diagnostic laboratories are conducted by the State department of health.

Activities.—During 1929, 262,201 examinations were made by the seven laboratories. These consisted chiefly of Wassermann tests, of the examination of typhoid blood and feces cultures, of feces for intestinal parasites, of blood slides for malaria, and the analyses of milk and water. No pathological tissues were examined. A summary of the activities of the laboratories is given on pages 98–99.

Fees.—No charges are made for laboratory services.

Biologicals.—Typhoid vaccine, diphtheria toxoid, and silver nitrate ampules are manufactured and distributed free of charge by the bureau of laboratories. Other biological products are purchased under contract and distributed through 136 stations. Diphtheria antitoxin and rabies treatments are available without charge to indigents. Other biologicals are sold at cost. A detailed analysis of the amount of biologicals distributed is given on pages 102. The State not only furnishes Pasteur treatments to indigents but also pays the physicians a fee of \$10 for administration.

Research.—During 1929, the laboratories obtained data on the incidence and the intensity of the hookworm problem in each county of the State, made studies of Morgan's bacillus infection, and investigated the effect of complement on the sensitiveness of the complement fixation test for syphilis.

BUREAU OF SANITARY ENGINEERING

Personnel.—In 1930 the personnel of this bureau consisted of a chief engineer, a secretary, three assistant engineers, and nine field supervisors.

Activities.—The work of this bureau consists primarily of control of public water supplies, and of supervision of sewage disposal, of malaria control, and of rural sanitation.

Public water supplies.—Plans for the construction of new water-supply plants or for the alteration of existing plants must be submitted to the State department of health for approval.

Bottled water.—Legislation concerning bottled waters has been passed.

Analysis.—All public and certified water supplies which meet the interstate quarantine regulations are analyzed quarterly. Water-purification plants are inspected once every three months and oftener if necessary.

Ice industry.—No legislation has been passed governing ice. The bureau of sanitary engineering serves in an advisory capacity concerning this matter.

Sewage-disposal systems.—No specific legislation with regard to sewage disposal has been passed. The bureau serves the municipalities in an advisory capacity.

Impounded water.—The department has made comprehensive regulations with regard to impounded waters. The bureau aids county health officers in formulating malaria-control programs.

Camps, swimming pools, and roadside water supplies.—The bureau has made no specific legislation with regard to tourist and summer camps, swimming pools, or roadside water supplies, but exercises general supervision over them.

BUREAU OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

Personnel.—The personnel of the bureau of child hygiene and public-health nursing in 1930 consisted of a director, a secretary, and three assistant directors.

Prenatal and maternal work.—Maternal and prenatal hygiene is carried on by the county health nurse under the supervision of the county health officer and with the advice and counsel of the central bureau of child hygiene. A total of 284 prenatal clinics was conducted by the full-time county health units during 1929.

Midwifery.—There is a regular policy of midwife instruction with a system of annual permits.

Ophthalmia neonatorum.—Any physician, midwife, nurse, or other person in attendance on a confinement case must instill a specified prophylactic solution in the eyes of the child within two hours after birth.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are licensed by the child-welfare department of the State government.

Infant and preschool hygiene.—Baby clinics are conducted by the county health units. In 1929, 1,986 clinics were held and 8,013 infants were examined. The State provides no facilities for correction of defects; cases are referred to private physicians and dentists.

School hygiene.—All school children must be examined once a year. In the organized units this work is carried on by the county health officer and his staff. In the unorganized counties the members of the central organization and private physicians conduct the examinations. Parents are notified of all defects found.

Public-health nursing.—In 1930 a director in charge of public-health nursing activities had technical supervision over the public-health nurses of the State department of health. Administrative supervision is exercised by the county health officers.

Eligibility requirements.—A State public-health nurse must be a graduate of a recognized school of nursing and a registered nurse. She must have had at least one year of training in public-health work and must show evidence of executive ability. A local public-health nurse must be a graduate of a recognized school of nursing and must show evidence of ability to assume responsibility.

Number of public-health nurses.—There were 110 public-health nurses in the State on January 1, 1930, all associated with county health departments.

BUREAU OF INSPECTION

The bureau of inspection was organized in 1919.

Personnel.—In 1930 the bureau of inspection consisted of a director, an assistant director, a veterinarian, 4 milk inspectors, 3 hotel inspectors, and 2 secretaries.

Activities.—The bureau of inspection aids the local health organizations to interpret and enforce the local regulations. Its chief activities include the inspection of hotels, meat markets, abattoirs, oyster beds, bakeries, etc.; and the control of milk sanitation. The standard milk ordinance of the United States Public Health Service was in force in 43 municipalities in 1929.

Food and drug laws.—The enforcement of the pure food and drugs laws is a function of the department of agriculture.

Food handlers.—The medical examination of food handlers is required by the State department of health.

Inspection.—The State department of health enforces laws concerning the inspection of hotels, bakeries, slaughterhouses, cold-storage warehouses, etc.

Shellfish.—The prevention of the pollution of shellfish is a function of the bureau of inspection.

Milk supplies.—The enforcement of the milk laws is under the jurisdiction of the State department of health. Pasteurization is enforced, laboratory examination of milk supplies is made, and dairies are inspected.

TABLE 85.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years*

ALABAMA

Bureau	1915	1916	1917	1918	1919	1920
Total budget for health work.....	\$25,000	\$25,000	\$25,000	\$25,000	123 \$101,522	123 \$187,823
State legislative budget for health work.....	25,000	25,000	25,000	25,000	38,860	90,000
Bureau of administration.....	6,500	6,500	6,680	6,500	8,010	8,673
Bureau of vital statistics.....	6,900	6,350	5,820	6,900	6,837	7,964
Bureau of laboratories.....	6,100	6,450	7,100	6,700	6,510	9,472
Bureau of sanitary engineering.....	5,500	5,700	5,300	4,900	4,710	8,275
Bureau of venereal-disease control.....					124 24,457	150 578
Bureau of public-health nursing.....					3,310	3,417
Bureau of inspection.....					3,273	3,907
Division of county health work:						
Central division.....						3 6,960
Full-time units.....					23 44,419	133 85,374
Bureau of epidemiology.....						4,470
Bureau of education.....						535

¹ United States Public Health Service funds included. (See Table 86.)

² Local agencies funds included. (See Table 86.)

³ Rockefeller Foundation funds included. (See Table 86.)

TABLE 85.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

ALABAMA—Continued

Bureau	1921	1922	1923	1924	1925
Total budget for health work.	1 2 3 \$463, 189	1 2 3 4 \$519, 591	1 2 3 4 \$552, 982	1 2 3 4 \$645, 352	1 2 3 4 \$732, 083
State legislative budget for health work.....	125, 000	150, 000	150, 000	207, 000	205, 000
Bureau of administration.....	28, 000	21, 244	12, 400	11, 475	11, 110
Bureau of vital statistics.....	12, 304	14, 361	12, 624	13, 265	3 16, 229
Bureau of laboratories.....	12, 236	3 11, 700	2 3 36, 286	2 3 52, 866	2 3 44, 796
Bureau of sanitary engineering.....	3 15, 063	3 27, 260	3 28, 920	3 25, 980	3 24, 437
Bureau of venereal-disease control.....	1 31, 688	35, 121	1 24, 408	1 28, 287	21, 380
Bureau of public-health nursing.....	5, 593	2, 978	183	2, 734	3, 163
Bureau of inspection.....	8, 522	10, 343	12, 033	13, 119	16, 810
Division of county health work:					
Central division.....	3 7, 200	3 7, 000	3 3, 825	1 3 25, 800	3 24, 100
Full-time units.....	1 2 3 234, 910	1 2 3 377, 945	1 2 3 418, 425	1 2 3 462, 368	1 2 3 556, 836
Bureau of epidemiology.....	5, 900	3, 000	3, 467	3 6, 477	3 8, 720
Bureau of education.....	1, 024	3, 292	896	Discontinued	
Bureau of child hygiene (funds distributed in full-time counties).....		4 15, 595	4 46, 674	4 46, 674	4 46, 674
Bureau of tuberculosis control.....			806	2, 465	4, 502

Bureau	1926	1927	1928	1929	1930
Total budget for health work.	1 2 3 4 \$773, 546	1 2 3 4 \$813, 059	1 2 3 4 \$1, 100, 496	1 2 3 4 \$1, 205, 672	1 2 3 4 \$1, 594, 800
State legislative budget for health work.....	205, 000	207, 087	446, 676	530, 433	635, 813
Bureau of administration.....	11, 656	16, 109	21, 884	33, 298	51, 225
Bureau of vital statistics.....	3 17, 000	3 23, 018	30, 148	34, 434	40, 800
Bureau of laboratories.....	2 3 40, 378	2 3 34, 447	2 55, 120	2 71, 697	4 66, 504
Bureau of sanitary engineering.....	3 21, 555	3 21, 843	23, 737	53, 120	62, 775
Bureau of venereal-disease control.....	25, 449	17, 797	33, 890	29, 783	(^b)
Bureau of public-health nursing.....	355	6, 009	25, 879	27, 904	(^b)
Bureau of inspection.....	20, 194	23, 160	44, 926	47, 585	53, 730
Division of county health work:					
Central division.....	3 17, 900	3 17, 900	30, 100	30, 100	25, 000
Full-time units.....	1 2 3 556, 572	1 2 3 589, 246	1 2 3 769, 391	1 2 3 805, 306	1 2 3 918, 226
Bureau of epidemiology.....	3 10, 390	3 11, 520	13, 870	24, 834	(^b)
Bureau of child hygiene (funds distributed in full-time counties).....	4 46, 674	4 46, 674	4 46, 674	4 46, 674	22, 940
Bureau of tuberculosis control.....	5, 424	5, 337	5, 875	945	(^b)
Bureau of preventable diseases.....					86, 810

1 United States Public Health Service funds included. (See Table 86.)

2 Local agencies funds included. (See Table 86.)

3 Rockefeller Foundation funds included. (See Table 86.)

4 Sheppard-Towner funds included. (See Table 86.)

5 Included under bureau of preventable diseases.

6 Included under bureau of child hygiene.

TABLE 86.—Total appropriations for State department of health by years

ALABAMA

Year	Total appropriation	Source of funds and amounts						
		State legislature	United States		County	County towns	Rockefeller Foundation	Others
			Public Health Service	Children's Bureau				
1915.....	\$25,000	\$25,000	-----	-----	(1)	(1)	(1)	(1)
1916.....	25,000	25,000	-----	-----	(1)	(1)	(1)	(1)
1917.....	25,000	25,000	-----	-----	(1)	(1)	(1)	(1)
1918.....	25,000	25,000	-----	-----	(1)	(1)	(1)	(1)
1919.....	101,522	38,860	\$28,188	-----	\$23,050	\$2,150	\$2,500	\$6,778
1920.....	187,823	90,000	30,354	-----	41,845	5,200	16,287	4,137
1921.....	463,189	125,000	21,136	-----	150,386	136,334	19,654	10,639
1922.....	519,591	150,000	10,338	\$10,298	152,580	133,321	30,621	32,433
1923.....	552,982	150,000	11,293	25,837	170,786	140,413	38,126	16,525
1924.....	645,352	207,000	12,596	25,837	179,815	165,728	40,876	13,000
1925.....	732,083	205,000	9,600	25,837	251,663	179,308	39,438	21,237
1926.....	773,546	205,000	7,175	25,837	277,789	164,573	40,810	51,362
1927.....	813,059	207,087	6,433	25,837	278,943	169,873	49,154	75,732
1928.....	1,100,496	446,676	5,050	25,837	338,125	199,496	23,422	61,890
1929.....	1,205,672	530,433	7,275	25,837	359,785	199,554	40,020	42,768
1930.....	1,594,800	635,813	14,925	-----	687,904	199,554	25,836	30,768

¹ No figures available.

ARIZONA

STATE BOARD OF HEALTH

Organization.—The State board of health of Arizona is composed of a president, a vice president, and a superintendent of public health. The governor is ex officio president and the attorney general is ex officio vice president of the board. The governor nominates and, with the advice and consent of the senate, appoints the superintendent of public health, who becomes the secretary of the board.

Term of office and compensation.—The members of the State board of health serve for two years; the terms of all three members terminate at the same time. They do not receive a salary; the president and vice president, however, are allowed 10 cents per mile for traveling expenses incurred in the performance of their official duties.

Meetings.—The State board of health meets once every six months. Special meetings may be called if necessary.

EXECUTIVE OFFICER

Legal qualifications.—The superintendent of public health must be a licensed practicing physician of the State; he is appointed by the governor with the approval of the State senate. By virtue of his appointment he becomes secretary of the State board of health.

Term of office and compensation.—The term of office of the superintendent of public health is two years. He receives a salary of \$3,800 a year. His actual traveling expenses incurred while on official duty are also paid; \$2,500 is appropriated annually for the traveling expenses of all employees of the State department of health.

Judicial, legislative, and executive powers.—The executive power of the State board of health is vested in the superintendent of public

Arizona - Organization of the State Department of Health in 1930

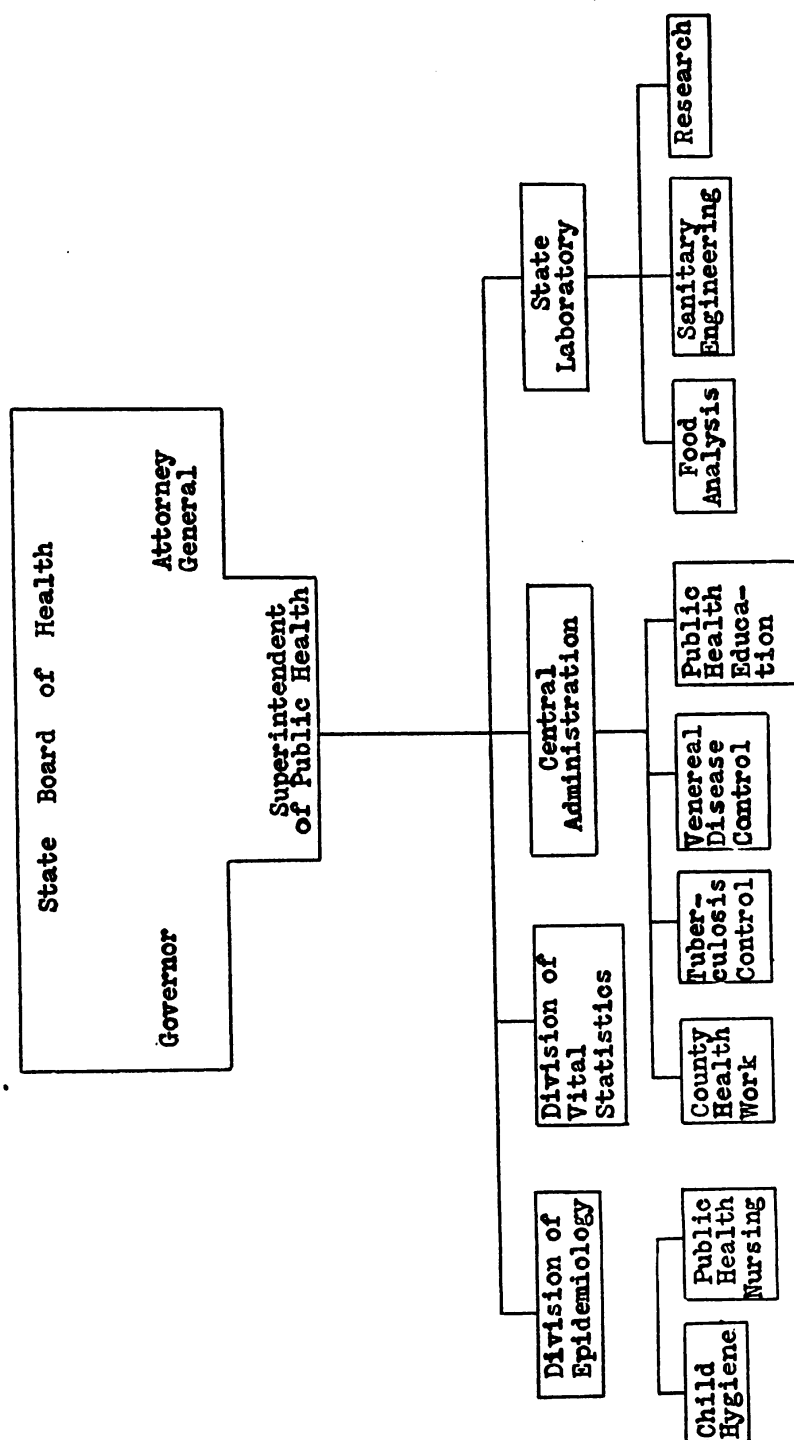


FIGURE 21

health. The board has no judicial authority but has legislative control of sanitation in general, food adulteration, communicable diseases, quarantine, and midwifery. The milk laws are enforced by the State

dairy commission. Enforcement of the medical practice law is not a function of the State department of health.

APPROPRIATIONS

A lump sum is appropriated each biennium to the State department of health and all the work of the department is carried on under one division with the exception of the State laboratory and the division of epidemiology. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 87.—*Divisions of the State department of health in 1930*¹

ARIZONA

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$21,400	2	² \$1,000	\$2,100	\$3,100
Division of vital statistics.....	(³)	⁴ 4	² 2,800	6,900	9,700
Division of epidemiology.....	5,700	1	4,500	-----	4,500
State laboratory.....	8,940	⁴ 4	3,000	3,840	6,840

¹ Total appropriation, \$41,040; total appropriation exclusive of tuberculosis sanatoria funds, \$41,040; State legislative appropriation, \$30,340.

² The salary of the superintendent of public health is \$3,800—\$1,000 as director of central administration and \$2,800 as State registrar.

³ Included under central administration.

⁴ Officials included whose time is devoted to more than one activity.

CENTRAL ADMINISTRATION

Personnel.—In 1930 the personnel of the central administrative office consisted of the superintendent of public health and a secretary.

Civil service.—The employees of the State department of health are not civil-service appointees. Changes in the State administration affect the tenure of personnel of the department.

Activities.—The activities of the State department of health are under the direction of the central administrative office. The superintendent of health supervises the activities of the local health departments, both county and municipal.

Disbursement of funds.—Funds are disbursed by the State treasurer on vouchers approved by the superintendent of public health.

Purchases.—Purchases are made by the superintendent of public health on direct order.

County health work.—In 1913 a bill was passed authorizing the establishment of county and city boards of health. Under the supervision of the State department of health, the county superintendents of health have charge of quarantine and of isolation of persons afflicted with any contagious, infectious, epidemic, or endemic disease within the State. At the close of 1930 there were six full-time county health units in operation.

TABLE 88.—Data on full-time counties operating throughout 1929

ARIZONA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property 1922	Mill tax	Number of whole-time personnel	
							Health officers	Nurses
Cochise.....	1921	41,542	\$2,000	\$0.05	\$143,526,000	\$0.00001	1	-----
Coconino.....	1926	13,645	6,100	.44	20,128,000	.0003	1	-----
Yuma.....	1926	17,523	12,060	.68	21,064,000	.0006	1	2
Total.....		72,710	20,160	.27	184,718,000	.0001	3	2

Tuberculosis control.—The control of tuberculosis is a function of the central administrative office. The State department of health carries on an educational program and advises local health organizations.

Clinics.—The State department of health does not maintain any tuberculosis dispensaries. During 1929 four clinics were conducted by local organizations and 31,500 patients were treated.

Sanatoria.—There are no State tuberculosis sanatoria. Two sanatoria with a capacity of 66 beds are maintained by counties, and 62 private or semiprivate sanatoria with a capacity of 2,150 beds are maintained in the State.

Venereal-disease control.—The superintendent of public health is in charge of the control of venereal diseases. The State department of health carries on educational measures but does not conduct clinics or administer treatments.

Publicity.—The publicity of the State department of health is directed by the superintendent of public health.

Press service.—The State press cooperates with the State department of health by publishing weekly articles furnished by the department.

Bulletins.—A regular bulletin is published each month and pamphlets are issued from time to time.

Equipment.—The department does not own lantern slides, nor a portable exhibit. Several motion-picture films have recently been acquired for educational purposes.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF EPIDEMIOLOGY

Personnel.—An epidemiologist was in charge of this division in 1930. He was unassisted.

Reporting of cases.—Cases of communicable diseases are reported monthly to the State department of health by the county superintendents of health and weekly by physicians.

Quarantine.—Quarantine measures are enforced by the local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—The State provides no emergency fund for use in case of a severe epidemic.

Child hygiene.—Activities concerned with child hygiene are carried on by the division of epidemiology. The program is an educational one; its primary object is to lower the infant and maternal mortality rates.

Maternal and prenatal hygiene.—Prenatal advice is given and home visits are made to demonstrate physicians' orders. Routine examinations are not made.

Midwifery.—Midwives must register with the State and local registrars. The field nurses visit and give instructions to midwives but have no legal authority over them.

Ophthalmia neonatorum.—Ophthalmia neonatorum cases must be reported and physicians and midwives must put drops in the eyes of the newborn.

Lying-in hospitals and orphanages.—The State department of health does not license lying-in hospitals or orphanages.

Demonstration conferences.—Demonstration conferences are held for prenatal work, infants, and preschool children. During 1929, 84 children were examined at these conferences. Corrections of defects must be made at the expense of the parent unless a free clinic is available or some outside organization provides funds for the indigent cases. Preschool vaccinations are given.

School hygiene.—Medical examinations of school children are not made.

Public-health nursing.—The State superintendent of public health supervises the work carried on by the public-health nurses.

Eligibility.—The eligibility requirements for a State public-health nurse are graduate standing, State registration, and satisfactory previous experience.

DIVISION OF VITAL STATISTICS

Personnel.—The superintendent of public health is the State registrar of vital statistics. In 1930 his staff included a statistician who had direct charge of the work, a full-time secretary, and a part-time secretary.

Registration districts.—The cities, towns, and counties exclusive of towns make up the primary registration districts.

Local registrars.—The local registrars are appointed by the State registrar. They are paid a fee of 50 cents by the county treasurer for each birth or death certificate issued.

Registration area.—The registration of births and deaths was begun in 1914, and the State was admitted to the registration areas for births and deaths in 1926.

Reporting of deaths.—In 1929, 90 per cent of all deaths occurring in the State were reported; of these, 90 per cent were reported by physicians and 10 per cent by others. Deaths must be reported to the local registrar within 72 hours and by the 10th of each month to the State registrar.

Legal standards.—The model law, standard certificate, and international lists of the causes of death are used.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, 90 per cent were reported by physicians, 5 per cent by midwives, and 5 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local government provides the postage.

Burial permits.—Burial permits are required and are issued by the local registrars.

Unlawful deaths.—In case death is thought to be caused by unlawful means, the local registrar must notify the coroner for investigation and certification.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State board of embalmers. Midwives are not licensed, but must register with the State and local registrars.

STATE LABORATORY

A State laboratory, located at the university, was established by the pure food law of 1922 for the analysis and examination of foods, water supplies, and drugs. The board of regents of the university, acting in joint session with the superintendent of public health, appoints a director for the laboratory.

Personnel.—In 1930 the director was assisted by a full-time bacteriologist and two part-time workers.

Appropriation.—A special appropriation is made by the State legislature through the State board of health for this work.

Branch and private laboratories.—There are no branch laboratories maintained by the State department of health, and the department has no supervision over private laboratories.

Special laboratories.—The State department of health maintains only one laboratory.

Activities.—During 1929, 3,409 examinations were made by the laboratory. These examinations were principally water analyses and

diphtheria examinations. A summary of the activities of the laboratory is given on pages 98-99.

Fees.—No charges are made for laboratory services.

Biological products.—Biological products are not manufactured or distributed by the State department of health.

Food and drugs.—The enforcement of the food and drugs laws is a function of the State laboratory.

Food handlers.—The medical examination of food handlers is not required by law.

Food inspections.—Food inspections are made and the laws concerning cold-storage plants are enforced by the employees of the State laboratory.

Shellfish.—Sanitation measures concerning shellfish are not undertaken by the State department of health.

Milk laws.—The milk laws are enforced by the State dairy commission. Examinations are made by the State dairy commissioner's department. The State laboratory makes examinations only as requested.

Public water supplies.—In aiding the local authorities to maintain safe water supplies, the State laboratory does the work of the division of sanitary engineering. This work is carried on in close cooperation with the sanitary engineers of the division of domestic quarantine of the United States Public Health Service.

Water analysis and inspection.—Most water supplies are analyzed and purification plants are inspected usually once a year. Where suspicion exists, reexaminations are made frequently until the supplies are improved and made safe.

Bottled waters.—The supervision of bottled waters comes under the pure food act.

Ice industry.—Legislation concerning ice is the same as that relative to public water supplies.

Sewage disposal.—No definite legislation concerning the disposal of sewage has been passed.

Camps and swimming pools.—Regulations concerning the sanitation of tourist and summer camps have been passed. There are no regulations concerning swimming pools.

Roadside water supplies.—The regulations concerning roadside water supplies are the same as those relating to public water supplies.

TABLE 89.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

ARIZONA

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....				\$12,800	\$23,600		\$27,400	¹ \$36,400
State legislative budget.....				12,800	23,600		24,650	26,400
Administration and vital statistics.....	\$5,000			12,800	19,850		24,650	23,650
State laboratory.....	4,500	\$4,500	\$4,500	4,500	4,500	\$4,500	4,500	4,850
Division of child hygiene.....					2,750	2,750	2,750	¹ 12,750

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	¹ \$44,201	¹ \$44,201	¹ \$32,405	¹ \$37,905	¹ \$41,458	¹ \$44,548	¹ \$44,848	¹ \$41,040
State legislative budget.....	31,948	31,948	27,405	27,405	26,950	30,040	30,340	30,340
Administration and vital statistics.....	19,055	19,055	21,855	21,855	21,400	21,400	21,400	21,400
State laboratory.....	5,600	5,600	5,550	5,550	5,550	8,640	8,940	8,940
Division of child hygiene.....	¹ 19,546	¹ 19,546	¹ 5,000	¹ 10,500	¹ 14,508	¹ 14,508	¹ 14,508	
Division of epidemiology.....								¹ 5,700

¹ United States Children's Bureau funds included. (See Table 90.)² United States Public Health Service funds included. (See Table 90.)³ Rockefeller Foundation funds included. (See Table 90.)TABLE 90.—*Total appropriations for State department of health, by years*

ARIZONA

Year	Total appropriation	Source of funds and amounts				Year	Total appropriation	Source of funds and amounts			
		State legislature	United States Public Health Service	United States Children's Bureau	Rockefeller Foundation			State legislature	United States Public Health Service	United States Children's Bureau	Rockefeller Foundation
1918.....	\$12,800	\$12,800				1925.....	\$32,405	\$27,405		\$5,000	
1919.....	23,600	23,600				1926.....	37,905	27,405		10,500	
1920.....						1927.....	41,458	26,950		14,508	
1921.....	27,400	24,650				1928.....	44,548	30,040		14,508	
1922.....	36,400	26,400		\$10,000		1929.....	44,848	30,340		14,508	
1923.....	44,201	31,948		12,254		1930.....	41,040	30,340	\$7,850		\$2,850
1924.....	44,201	31,948		12,254							

ARKANSAS

STATE BOARD OF HEALTH

Organization.—The State Board of Health of Arkansas consists of seven members appointed by the governor, one from each congressional district of the State. Each member must be a graduate of a medical college, have had at least seven years' experience, and be of good professional standing.

Term of office and compensation.—The term of office is four years; two members are appointed each year. The members receive \$10 per diem when in executive session and 3 cents per mile for traveling expenses.

Number of meetings.—The board meets quarterly, or as often as may be necessary on call of the president or of a majority of the members of the board.

Arkansas - Organization of the State Department of Health in 1930

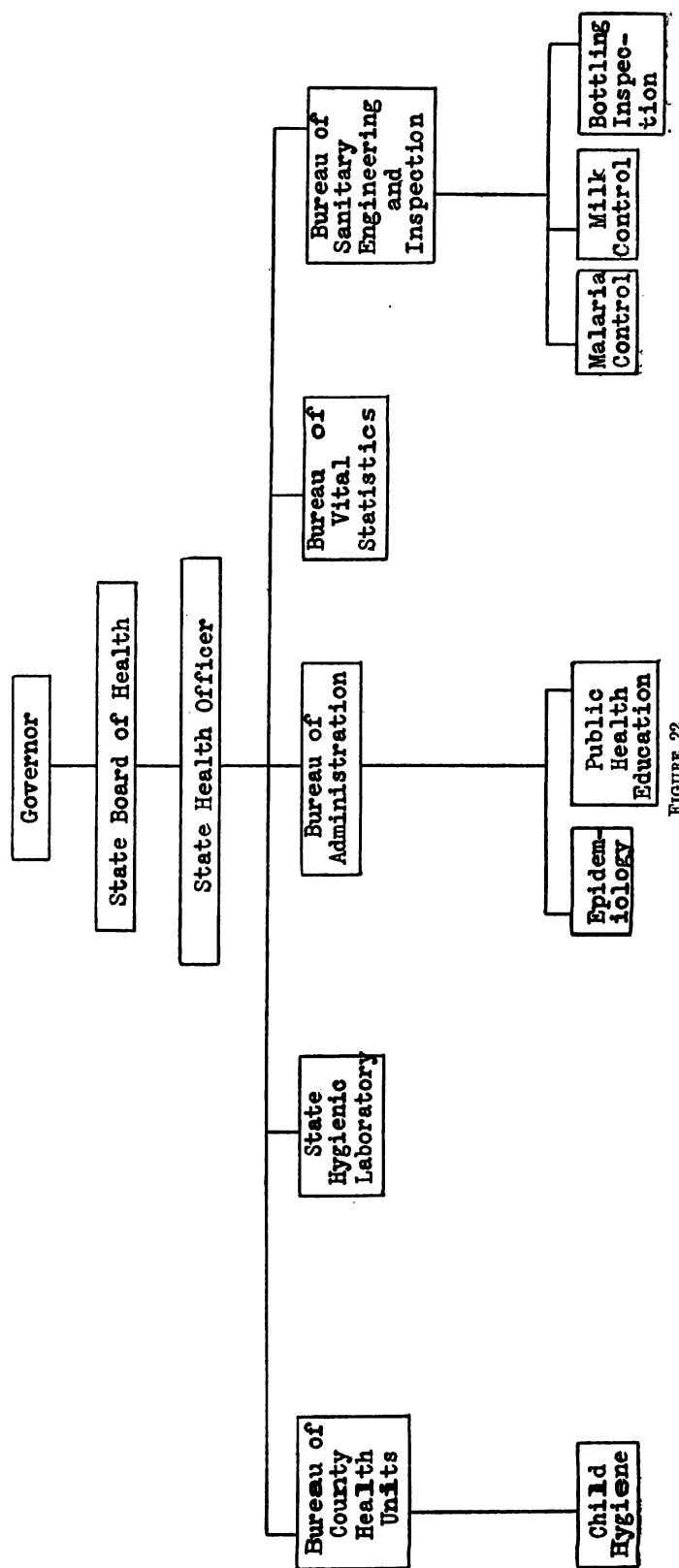


FIGURE 24

EXECUTIVE OFFICER

Legal qualifications.—The State health officer, who is the secretary of the board, must possess all the qualifications of a member of the board. He is elected by the board from or outside its membership, with the approval of the governor.

Term of office and compensation.—The term of office of the State health officer is four years. He receives a yearly salary of \$5,000 in addition to all necessary traveling expenses.

POWERS OF STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The board has the power to make all necessary rules and regulations for the protection of the public health, for the amelioration of sanitary and hygienic conditions within the State for the prevention of communicable diseases, and for the proper enforcement of quarantine, isolation, and control of such diseases. The executive power of the State department of health is vested in the State health officer, who performs such duties as may be prescribed by the board. The board has no judicial power but exercises supervisory control over all matters pertaining to health, with the exception of food adulteration, which is a function of the department of mines, manufacture, and agriculture. The enforcement of the medical practice act is not a function of the board.

City boards of health.—There is a city board of health in each first and second class city. The city health officer is appointed by the mayor with the approval of the council. In case of failure on the part of the city officials to fill the office of city health officer, the State board of health has the power to appoint such officer to hold office until the position is filled by the local authorities.

APPROPRIATIONS

The general assembly appropriates for a biennial period certain sums of money for each bureau in the State department of health. The transfer of moneys from one bureau to another may be made upon the recommendation of the State health officer with the approval of the governor. The State legislative appropriation for the State department of health has been steadily increased during the last 10 years. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 91.—*Bureaus of the State department of health in 1930*¹

ARKANSAS

Bureaus	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$11,800	3	\$5,000	\$3,300	\$8,300
Bureau of county health units—central administration.....	14,900	5	4,000	8,100	12,100
Full-time units.....	238,335	102			185,830
Bureau of vital statistics.....	33,900	9	2,100	10,980	13,080
State hygienic laboratory.....	6,120	3	2,500	2,420	4,920
Bureau of sanitary engineering and inspection.....	23,080	5	4,000	9,900	13,900

¹ Total appropriation, \$328,135; total appropriation exclusive of tuberculosis sanatoria funds, \$328,135; State legislative appropriation, \$86,400.

BUREAU OF ADMINISTRATION

The work of the various bureaus is under the supervision of the central bureau. The State health officer is the director of this bureau and of the bureau of venereal diseases. He is also the State registrar of vital statistics.

Personnel.—The administrative work is carried on by the State health officer and two assistants.

Civil service.—The employees of the State department of health are not civil-service appointees. Changes in State administration do not affect the personnel of the department.

Disbursement of funds.—Vouchers originate in the health department, are warranted by the State auditor, and paid by the State treasurer.

Purchases.—Purchases are made directly on order from the State health officer.

Epidemiology.—As there is no bureau of epidemiology, the State health officer is in charge of communicable-disease control.

Reports of cases.—The local health officers report cases of communicable diseases once a week to the State health officer.

Quarantine.—Quarantine measures are under the control of the State health officer, assisted by the local health officers.

Smallpox vaccination.—There is a state-wide regulation sustained by the supreme court making smallpox vaccination compulsory for school children. This regulation is generally enforced. In some counties where there is no health officer or where the county superintendent of education is unsympathetic, infractions of this regulation occur.

Emergency fund.—There is no specific appropriation for use in case of a severe or extensive epidemic, but the governor can issue a deficiency proclamation.

Venereal-disease control.—The bureau of venereal-disease control has been discontinued. Cases of venereal disease must be reported

by physicians by number within three days after the first examination. A health officer may cause suspected cases to be examined and isolated if necessary.

Clinics and treatments.—No venereal-disease clinics are conducted by the health department, and no treatments were administered during 1929.

Tuberculosis.—There is no bureau for the control of tuberculosis, and the State department of health has no special program for work in tuberculosis control.

State sanatorium.—A State sanatorium for whites, with a capacity of 325 beds, is under the control of a special board. A total of \$285,000 was appropriated to maintain this sanatorium in 1930.

Publicity.—The State health officer has charge of the publicity of the health department.

Press service.—The newspapers of the State cooperate with the State department of health.

Bulletins.—There is no regular bulletin, but pamphlets and bulletins are issued when necessary.

Equipment.—The State department of health owns its own stereopticon, 500 slides, 10 motion-picture films, and a truck equipped with a dynamo and a moving-picture projector. In addition there are State and county fair exhibits.

Cooperation.—The State departments of education and of health jointly conduct courses in public health at county teachers' institutes. There is close cooperation also between the county superintendents of education, the State department of education, and the State department of health concerning the sanitation of public school buildings and grounds.

BUREAU OF COUNTY HEALTH UNITS

Personnel.—In 1930 the personnel of the central division of the bureau of county health units consisted of the director, a supervisory nurse, and a clerk. The central division has supervisory control over such appropriation as was made under the act of April 1, 1925, and known as the county organization of State aid fund. By means of this appropriation State funds are available to any county making an appropriation of an adequate sum of money.

Full-time county units.—At the close of 1930 there were 24 full-time county health organizations in operation, covering 47 per cent of the total population of the State. A special appropriation of \$7,000 was made in 1930 for full-time units.

Supervision.—The State health department acts in a supervisory and advisory capacity toward local boards of health. Otherwise the local departments of health have jurisdiction over their respective territories. In case they fail to act, the State department of health

may act, and the expenses incurred are paid by the local government. The State board of health appoints a county health officer for each county to serve for two years. He is subject to removal by the board.

Child hygiene.—Activities relating to maternal and child hygiene are now carried on by the bureau of county health units.

Prenatal, maternal, and infant hygiene.—Prenatal, maternal, and infant hygiene activities are carried on through child conferences which are arranged locally. During 1929, 150 prenatal group conferences and 437 infant conferences with mothers were held. A total of 4,850 infants were examined at these conferences.

TABLE 92.—Data on full-time counties operating throughout 1929

ARKANSAS

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel					
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks	Others
Sebastian.....	1925	54,660	\$15,460	\$0.28	\$29,050,000	\$0.0005	Fort Smith (31,174).....	1	—	3	—	1	2
Pulaski.....	1925	134,691	15,300	.11	70,312,000	.0002	Little Rock (80,005).....	1	1	1	2	1	—
							North Little Rock (18,376).....	—	—	—	—	—	—
Jefferson.....	1925	63,768	14,460	.22	21,372,000	.0007	Pine Bluff (20,612).....	1	—	1	3	1	—
Garland.....	1925	34,893	10,300	.29	14,339,000	.0007	Hot Springs (19,273).....	1	1	1	1	1	—
Jackson.....	1927	27,691	9,000	.32	8,753,000	.0010	—	1	—	1	1	—	—
Mississippi.....	1927	67,615	11,731	.17	15,741,000	.0007	Blytheville (9,732).....	1	—	1	1	1	—
Phillips.....	1927	41,101	11,375	.27	14,997,000	.0008	—	1	—	1	2	1	—
Union.....	1927	53,163	17,659	.33	16,217,000	.0011	El Dorado (15,164).....	1	—	1	2	1	1
Saline.....	1927	15,773	9,500	.60	7,043,000	.0013	—	1	—	1	1	1	—
Monroe.....	1927	20,746	9,000	.43	7,039,000	.0013	—	1	—	1	1	—	—
Yell.....	1927	21,749	9,000	.41	6,385,000	.0014	—	1	—	1	1	—	—
Ashley.....	1927	24,970	9,000	.36	7,313,000	.0012	—	1	—	1	1	—	—
Conway.....	1927	22,038	9,000	.40	4,643,000	.0019	—	1	—	1	1	—	—
Pope.....	1927	26,604	9,000	.33	6,947,000	.0013	—	1	—	1	1	—	—
Woodruff.....	1927	25,568	9,000	.35	6,400,000	.0014	—	1	—	1	1	—	—
Draw.....	1927	19,995	9,000	.45	4,924,000	.0018	—	1	—	1	1	—	—
Cross.....	1927	25,009	7,500	.29	7,942,000	.0009	—	1	—	1	1	—	—
Arkansas.....	1927	22,203	9,000	.40	6,847,000	.0013	—	1	—	1	1	—	—
Desha.....	1927	21,665	9,000	.41	5,874,000	.0015	—	1	—	1	1	—	—
Little River.....	1928	15,527	9,000	.57	4,892,000	.0018	—	1	—	1	1	—	—
White.....	1928	37,784	9,000	.23	9,613,000	.0009	—	1	—	1	1	—	—
Total.....		774,219	221,235	.28	276,643,000	.0008		21	2	23	25	8	

Midwifery.—Each midwife, in order to practice, must have a permit issued by the State board of health.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported. In addition, every physician or midwife must instill one or two drops of a 2 per cent solution of silver nitrate into the eyes of the new born.

Lying-in hospitals and orphanages.—The State board of health does not license maternity hospitals or orphanages.

Preschool hygiene.—Preschool hygiene activities are carried on when clinics are established in various communities through the cooper-

ation of physicians and local organizations. Such arrangements are temporary in character.

School hygiene.—The examination of school children is conducted by local health authorities and the work is financed entirely by local communities.

Public-health nursing.—There is no supervisory nurse for public-health nursing activities.

Eligibility requirements.—A State or local public-health nurse must be a graduate nurse with public-health training.

BUREAU OF VITAL STATISTICS

Personnel.—The State health officer is the State registrar of vital statistics. In 1930 the bureau was under the direction of a full-time statistician who was assisted by six full-time clerks and one field agent.

License fees.—The bureau of vital statistics collects from the county and chancery clerks 50 cents for each marriage license issued and for each divorce petition filed. These fees are deposited in the State treasury to the credit of the general revenue fund, from which fund all appropriations for the bureau of vital statistics are made. The local registrars are paid from this fund, moreover, and not by the county commissioners, as is customary in all other States except Kansas.

Registration districts.—The registration district is the township or the incorporated town.

Local registrars.—The local registrars are chosen by the State registrar. They receive a fee of 25 cents for each birth and death certificate issued, or for the monthly report when no certificates are received. These fees are paid by the State department of health.

Registration area.—Arkansas was admitted to the registration areas for births and deaths in 1927.

Reporting of deaths.—In 1929, 90 per cent of all deaths occurring in the State were reported, all by undertakers. Deaths must be reported at once to the local registrar and by the 10th of the month to the State registrar.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, 70 per cent were reported by physicians and 30 per cent by midwives. Births must be reported within 10 days to the local registrar, and monthly reports are sent by the 10th of each month to the State registrar.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The bureau of vital statistics supplies the blanks for recording the returns but does not supply the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner makes an investigation and reports the death.

Burial permits.—A burial permit is necessary and is issued by the local registrar.

Licensing.—Physicians are licensed by the State board of medical examiners and undertakers by the State embalming board. Midwives in order to practice must receive permits, which are issued by the State board of health.

STATE HYGIENIC LABORATORY

Organization.—In 1913 a hygienic laboratory for making analyses of foods and drugs, and for investigations of cases of infectious, contagious, and communicable diseases was established, equipped, and maintained by the State board of health. At that time the laboratory was maintained at the medical department of the University of Arkansas in connection with the department of chemistry and bacteriology, but under the direct supervision of the secretary of the State board of health. The work increased so that on July 1, 1923, it was necessary to move the laboratory to the new State capitol building in Little Rock.

Personnel.—In 1930 the personnel of the State laboratory consisted of a director, three technicians, a stenographer, and a helper.

Branch laboratories.—There are no branch laboratories.

Private laboratories.—The State board of health has the power to approve or disapprove of the private laboratories in the State.

Special laboratories.—No special laboratories are maintained by the State department of health; all water and sewage work is done in the general laboratory.

Activities.—During 1929, 26,210 examinations were made, chiefly Wassermann tests, water analyses, and examinations of blood slides for malaria. A summary of the diagnostic activities is given on pages 98–99.

Fees.—No charge is made for any laboratory service.

Biological products.—During 1929 the laboratory prepared 107,770 cubic centimeters of typhoid vaccine for free distribution. The State has an agreement with a commercial biological house to furnish biologicals to county and city health officers at Federal Government rates. A central distributing depot for typhoid vaccine is maintained by the hygienic laboratory.

BUREAU OF SANITARY ENGINEERING AND INSPECTION

Personnel.—In 1930 the personnel of the bureau consisted of a chief sanitary engineer, a field director of malaria control work, a hotel inspector, a bottling-plant inspector, and a secretary.

Public water supplies.—Broad powers are delegated to this bureau through the State board of health. The rules and regulations of the board require that before a water or purification system may be

installed, the plans and specifications must be submitted to the State board of health for approval. The board may also issue orders requiring improvements in public water supplies to prevent pollution. There is no act empowering cities to raise funds in order to meet the cost of improvements required by the State board of health.

Bottled water.—Bottled water is included under the regulations relating to public water supplies.

Analysis and inspection.—Water supplies are analyzed and purification plants are inspected at indefinite intervals.

Ice industry.—Ice must be made from distilled water or from sources of water approved by the State department of health.

Sewage disposal.—Plans for sewerage systems and sewage-treatment works must be submitted for the approval of the State board of health.

Tourist and summer camps.—The bureau has passed rules and regulations with regard to tourist and summer camps.

Swimming pools.—The approval of the State health officer is necessary prior to the construction of a public swimming pool. The water used in such swimming pool must be approved by the State health officer. Bathers with any skin disease must present a certificate before being allowed to use the pool.

Roadside water supplies.—There is no legislation concerning roadside water supplies.

Milk laws.—The enforcement of the milk laws and the law requiring the annual tuberculin testing of all dairy cows are functions of the department of health. There is no State law concerning the pasteurization of milk, and no State laboratory control of milk supplies. Dairies are not licensed by the health department.

Malaria control.—Malaria control work is a function of this bureau.

Inspection.—Hotels, bakeries, bottling plants, slaughterhouses, etc., are inspected by the health department.

TABLE 93.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years*

ARKANSAS						
Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$8,970	\$7,355	\$7,355	\$15,990	¹ \$33,109	¹ \$61,067
State legislative budget.....	8,970	7,355	7,355	15,990	15,990	43,949
Bureau of administration.....	8,970	7,355	7,355	5,650	5,650	6,300
Bureau of vital statistics.....				5,340	5,340	11,325
Bureau of sanitary engineering and inspection.....				5,000	5,000	9,205
Bureau of venereal disease.....					¹ 17,119	¹ 34,237

¹ Interdepartmental social hygiene board funds included. (See table 94.)

TABLE 93.—Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued

ARKANSAS—Continued

Bureau	1921	1922	1923	1924	1925
Total budget.....	1 \$58,491	1 \$82,527	1 \$71,229	1 \$111,238	1 \$116,113
State legislative budget.....	46,638	63,174	57,500	85,000	85,000
Bureau of administration.....	10,205	13,900	13,900	13,900	13,900
Bureau of vital statistics.....	11,100	15,500	15,500	28,400	29,400
Bureau of sanitary engineering and inspection.....	11,705	21,274	15,600	18,700	13,700
Bureau of venereal disease.....	26,471	21,853	16,229	12,900	12,500
Bureau of child hygiene.....		5,000	5,000	24,318	21,000
State hygienic laboratory ⁴				13,000	12,000
Full-time counties.....					14,388

Bureau	1926	1927	1928	1929	1930
Total budget.....	1 \$133,859	1 \$142,475	1 \$354,815	1 \$334,711	1 \$328,135
State legislative budget.....	85,320	85,320	90,820	67,820	86,400
Bureau of administration.....	10,900	10,900	10,040	10,040	11,800
Bureau of vital statistics.....	31,825	33,325	33,900	33,900	33,900
Bureau of sanitary engineering and inspection.....	16,300	16,300	12,210	12,210	23,060
Bureau of venereal disease.....	12,500	14,600	3,100	3,100	Discontinued. (⁵)
Bureau of child hygiene.....	23,000	19,000	38,635	14,182	
State hygienic laboratory ⁴	9,220	9,220	9,170	9,170	6,120
Full-time counties.....	30,114	39,130	230,660	235,209	238,385
Bureau of county health units.....			17,100	16,900	14,900

¹ Interdepartmental social hygiene board funds included. (See Table 94.)² Rockefeller Foundation funds included. (See Table 94.)³ United States Children's Bureau funds included. (See Table 94.)⁴ Laboratory previously under the university medical department.⁵ Local funds included. (See Table 94.)⁶ United States Public Health Service funds included. (See Table 94.)⁷ Includes \$23,000 deficiency proclamation.⁸ Includes \$7,000 deficiency proclamation.⁹ Child hygiene included under the bureau of county health units.

TABLE 94.—Total appropriations for State department of health by years

ARKANSAS

Year	Total appropriation	Source of funds and amounts						
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	County and county towns	Rockefeller Foundation	Others	Interdepartmental social hygiene board
1915.....	\$8,970	\$8,970						
1916.....	7,355	7,355						
1917.....	7,355	7,355						
1918.....	15,990	15,990						
1919.....	33,109	15,990						\$17,119
1920.....	61,067	43,949						17,119
1921.....	58,491	46,638				\$2,500		9,353
1922.....	82,527	63,174		\$5,000		5,000		9,353
1923.....	71,229	57,500		5,000		5,000		3,729
1924.....	111,238	85,000		16,818		9,000		420
1925.....	116,113	85,000	\$3,046	13,500	\$8,882	4,775	\$910	
1926.....	133,859	85,320	3,375	14,000	23,239	4,318	1,507	2,100
1927.....	142,475	85,320	3,500	12,000	30,830	3,300	5,425	2,100
1928.....	354,815	90,820	106,514	21,818	87,010	38,957	7,596	2,100
1929.....	334,711	67,820	89,207	14,182	99,495	44,403	17,504	2,100
1930.....	328,135	86,400	90,782		113,797	33,635	1,021	2,500

¹ This includes \$23,000 deficiency proclamation.² This includes \$7,000 deficiency proclamation.

CALIFORNIA

STATE DEPARTMENT OF PUBLIC HEALTH

Organization.—The State department of public health is under the control of a board of public health composed of seven members, including the director of public health. The board is appointed by the governor.

BOARD OF PUBLIC HEALTH

Term of office and compensation.—Each member must be a duly licensed and practicing physician of the State, and each member other than the director of public health is appointed for a term of four years. The term of one member expires every other year, and the terms of two members terminate in the alternate years. The members serve without salary, but receive traveling expenses incurred during the discharge of duties.

Meetings.—Meetings of the board are held every month.

EXECUTIVE OFFICER

Legal qualifications.—The executive officer of the board is the director of public health. He is appointed by the governor from outside the membership of the board. He must be a duly licensed and practicing physician of the State. Before entering upon the duties of his office he must execute an official bond to the State in the penal sum of \$10,000, conditioned upon the faithful performance of his duties.

Term of office and compensation.—The director holds office at the pleasure of the governor. He receives a yearly salary of \$6,000 and traveling expenses incurred in the performance of his duties. Traveling expenses outside the State are paid only with the approval of the governor and of the director of finance.

POWERS OF THE STATE DEPARTMENT OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—The State board of public health may hold hearings and make rules and regulations; the director enforces the regulations pertaining to sanitation in general, water pollution, sewage disposal, food adulteration, nuisances, communicable diseases, and quarantine. Milk supplies are under the control of the State department of agriculture. The enforcement of the medical practice law and the supervision of midwives are functions of the State board of medical examiners.

APPROPRIATIONS

Appropriations are allotted to the various brueaus for biennial periods. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

DIVISION OF ADMINISTRATION

Personnel.—In 1930 the personnel of the division of administration consisted of the director of public health, a principal clerk, two chief clerks, a financial clerk, four stenographers, a clerk, and a messenger.

California - Organization of the State Department of Public Health in 1930

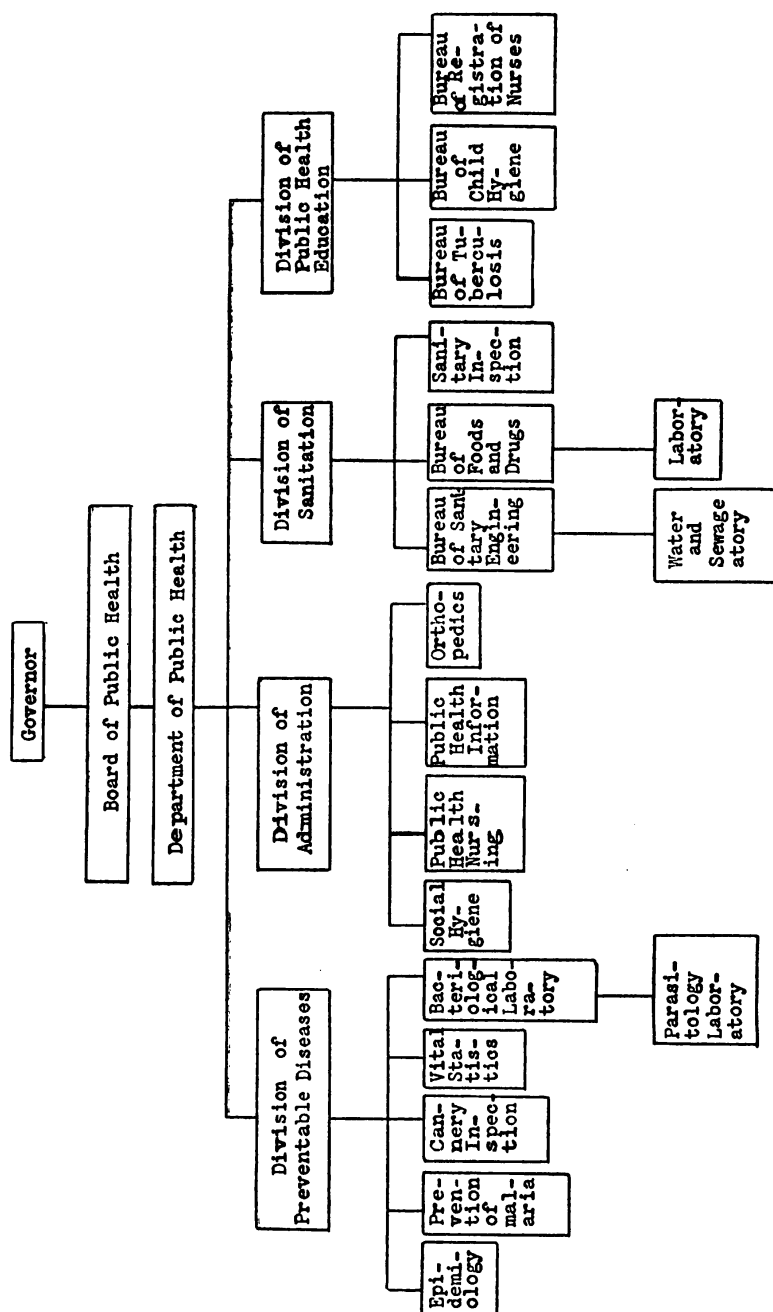


FIGURE 23

Civil service.—All employees of the State department of public health, except the director and the technical experts, are civil-service appointees. The technical experts are appointed by the director,

subject to confirmation by the State board of public health. Changes in State administration do not affect the personnel of the department.

Activities.—General supervision of the various bureaus and activities of the entire department is vested in the director.

Disbursements of funds.—Funds are disbursed on claims approved by the director, the board of control of the department of finance, and the controller. State department of public health funds go to the State treasurer; warrants are drawn on the treasurer and their receipts are approved by the board of control.

TABLE 95.—Bureaus and divisions of the State department of health in 1930 ¹

CALIFORNIA

Bureaus and divisions	Total budgets by bureaus and divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$46,870	12	\$6,000	\$26,260	\$32,260
Social Hygiene.....	(²)	(²)	(²)	(²)	(²)
Public-health nursing.....	15,805	5	3,000	7,680	10,680
Public-health information.....	(²)	1	3,000	-----	3,000
Orthopedics.....	4,100	2	(²)	3,840	3,840
Division of preventable diseases:					
Epidemiology.....	29,000	8	4,200	15,929	20,120
Prevention of malaria.....	11,413	1	4,000	-----	4,000
Cannery inspection.....	\$ 74,360	19	3,800	39,945	43,745
Vital statistics.....	20,610	11	3,000	13,020	16,020
Bacteriological laboratory.....	26,333	10	4,200	14,980	19,180
Division of sanitation:					
Bureau of sanitary engineering.....	28,725	⁴ 10	4,200	15,390	19,590
Bureau of food and drugs.....	41,565	13	4,000	25,380	29,380
Sanitary inspection.....	24,640	7	3,180	12,060	15,240
Division of public-health education:					
Bureau of tuberculosis.....	³ 23,950	8	4,000	10,770	14,770
Bureau of child hygiene.....	20,840	9	4,000	8,040	12,040
Bureau of registration of nurses.....	³ 18,340	⁴ 10	3,000	11,740	14,740

¹ Total appropriation, \$706,550; total appropriation, exclusive of tuberculosis subsidy, \$386,550; State legislative appropriation, exclusive of tuberculosis subsidy, \$386,550.

² Under the division of administration.

³ Appropriation not made for this activity by the State legislature. Self-supporting from fees.

⁴ Officials included whose time is devoted to more than 1 activity.

⁵ \$320,000 subsidy not included.

Purchases.—Purchases are made on requisition through the department of finance, division of purchases and custody, and by the State purchasing agent. For large projects, bids and estimates must be obtained; upon the approval of the board of control the order is placed by the purchasing agent.

Supervision.—Local boards of health are required to enforce the rules and regulations passed by the State board of public health. The State department of public health acts in an advisory capacity to the local boards of health and extends financial cooperation to certain counties by contributing personnel. If the local authorities fail to act, the State department of public health may take charge of the work and require the local community to meet the expenses of the work.

Full-time county health units.—At the close of 1930 there were 13 full-time county units, excluding San Francisco.

SOCIAL HYGIENE

Personnel.—Social hygiene is carried on under the division of administration. One clerk had charge of this work in 1930. The part played by the State is largely educational.

Venereal disease clinics.—There were 16 venereal-disease clinics in 1929 conducted by local boards of health under State regulations. Reports on the work of these clinics were made to the State department of public health.

Treatments.—The State department of public health furnishes treatments for venereal diseases free of charge.

TABLE 96.—Data on full-time counties operating throughout 1929

CALIFORNIA

County	Organized	1928 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Los Angeles..	1915	2, 075, 567	\$1, 342, 487	\$0. 64	\$1,319,557,000	\$0. 0010	Alhambra (27,505).... Glendale (57,699). Long Beach (132,- 934). Los Angeles (1,167,- 874). Pasadena (72,822). Pomona (19,976). Santa Monica (34,- 818). Beverly Hills (15,- 749). Burbank (15,081). Compton (11,207). Huntington Park (22,567). Inglewood (17,974). Monrovia (10,340). South Pasadena (13,115). Whittier (14,126). Santa Ana (28,697).. Anaheim (10,287). Fullerton (10,179).	137	80	87	93	63
Orange.....	1922	112, 891	62, 500	. 55	136, 448, 000	. 0005	.....	2	8	7	2	4
San Luis Obispo.	1923	28, 841	21, 105	. 73	33, 991, 000	. 0006	.....	1	1	3	---	2
San Joaquin..	1923	100, 515	101, 621	1. 01	96, 396, 000	. 0011	.....	2	6	14	6	7
San Diego....	1924	199, 755	81, 290	. 40	82, 774, 000	. 0010	San Diego (140,572).. Santa Barbara (32,- 131).	2	10	8	2	1
Santa Bar- bara.	1925	62, 679	41, 250	. 65	51, 412, 000	. 0008	.....	1	2	6	2	1
Riverside....	1926	79, 070	36, 488	. 46	38, 769, 000	. 0009	Riverside (29,520)....	1	2	8	1	1
Yolo.....	1927	22, 964	16, 125	. 70	26, 218, 000	. 0006	.....	1	1	---	---	---
Contra Costa.	1928	76, 087	13, 600	. 17	78, 355, 000	. 0002	Richmond (19,633)..	1	---	2	1	---
Madera.....	1928	16, 658	10, 000	. 60	18, 854, 000	. 0005	.....	1	---	2	---	---
Total.....	-----	2, 775, 027	1, 726, 466	. 62	1, 882, 774, 000	. 0009	-----	149	110	137	107	79

PUBLIC-HEALTH NURSING

Organization.—In 1930 public-health nursing functioned under the division of administration; the supervision of nursing service was a responsibility of the director of public health. There were five public-health nurses whose services were lent to the full-time county health organizations.

Eligibility requirements.—A State or local public-health nurse must have a certificate from the State board of public health and must be a registered nurse in the State.

Number of public health nurses.—There were 1,106 registered public-health nurses in the State in 1930.

PUBLIC-HEALTH INFORMATION

Personnel.—The activities concerned with public-health information and the publicity of the State department of public health are under the direction of a chief.

Bulletins.—A weekly bulletin is issued.

Press service.—Items on public health subjects are mailed directly to the newspapers of the State.

Equipment.—The several bureaus have their own lantern slides and motion-picture films.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

ORTHOPEDICS

History.—In 1927 an act was passed creating an orthopedic service, which functions directly under the division of administration.

Personnel.—In 1930 the personnel consisted of a field nurse and a clerk.

Activities.—The act creating this service relates to the care, treatment, transportation, and physical rehabilitation of physically defective and handicapped persons under 18 years of age, by and under the direction and supervision of the State department of public health and the county boards of supervisors. Up to January 1, 1930, 2,970 crippled children had been located, 2,605 home visits had been made, 676 cases of post-poliomyelitis had been investigated, and 158 certificates had been issued from 35 counties authorizing operative procedure.

DIVISION OF PREVENTABLE DISEASES

Organization.—Since the reorganization of the State department of public health in 1927, the division of preventable diseases has been composed of five sections, as follows:

EPIDEMIOLOGY

Personnel.—In 1930 the budget provided for a chief epidemiologist (medical), as assistant epidemiologist (medical), two assistant epi-

demologists (nonmedical), a nurse in charge of communicable diseases, a district health officer, a stenographer, a clerk, and a clerk-typist.

Executive authority.—Executive authority in the control of communicable diseases is vested in the State department of public health, with the director as executive officer.

Activities.—The activities are twofold: (1) Morbidity, which consists of the recording, tabulating, and interpreting of morbidity reports; (2) Field work, which includes epidemiological, diagnostic, and field laboratory studies. During 1929 a special survey was made of coccidioidal granuloma cases, and a campaign for immunization against smallpox and diphtheria was inaugurated.

Reporting of communicable diseases.—Physicians or any other persons knowing of the existence of cases of communicable disease report such cases to the health officer, who in turn reports the cases weekly to the State department of public health. Certain diseases are reported at once by wire.

Quarantine measures.—Quarantine measures are controlled by the State and local boards of health.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—No emergency fund is appropriated to the State department of public health but there is a fund which can be used at the governor's discretion in an emergency, on the request of the director of public health and the recommendation of the board of control.

PREVENTION OF MALARIA

Personnel.—Malaria control activities were under the direction of a malaria engineer in 1930.

Activities.—Measures to control all mosquitoes, including the salt-marsh variety, have been undertaken.

VITAL STATISTICS

Personnel.—In 1930 the personnel consisted of the State registrar of vital statistics, a deputy, and nine clerks.

Registration districts.—The primary registration districts of the State are not uniform; they may be cities, incorporated towns of 5,000 or more inhabitants, counties, or sometimes subdivisions of counties.

Local registrars.—Clerks of cities and incorporated towns with a population of 5,000 or more serve as local registrars. In the freeholders' charter, city health officers are local registrars; otherwise, the local registrars are appointed by the State registrar and approved by the director. The registrars appointed by the State registrar are

paid 25 cents for each birth or death certificate issued. These fees are paid by the counties upon certification by the State registrar.

Registration area.—California was admitted to the registration area for deaths in 1906 and to the registration area for births in 1919.

Reporting of deaths.—In 1929, 100 per cent of the deaths occurring in the State were reported. Physicians and coroners reported the entire number. Deaths must be reported within five days to the local registrars and by the 5th of each month to the State registrar.

Legal standards.—The vital statistics registration law based upon the model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 95 per cent of all births were reported; of these, 92 per cent were reported by physicians and 8 per cent by midwives. Births must be reported within four days to the local registrars and by the 5th of each month to the State registrar.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—Blanks for recording the returns are supplied by the State registrar; the postage is furnished by the local organization.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Unlawful deaths.—If death is thought to be caused by unlawful or suspicious means, the matter is referred to the coroner by the undertaker or the local registrar.

Licensing.—Physicians and midwives are licensed by the State board of medical examiners. Undertakers are licensed by the State board of embalmers.

BACTERIOLOGICAL LABORATORY

Personnel.—In 1930 the personnel of the bacteriological laboratory consisted of a chief, a stenographer, four bacteriologists, a clerk, and three laboratory assistants.

Central laboratory.—The central laboratory is located on the campus of the University of California. This is the only connection between the university and the State bacteriological laboratory, however.

Branch laboratories.—There are no branch laboratories in the State.

Private laboratories.—The inspection and certification of diagnostic laboratories is compulsory for city and county laboratories, but is optional for private, hospital, and clinic laboratories.

Special laboratories.—There are two special laboratories maintained by the State department of public health and located at the university. These are a laboratory under the bureau of foods and drugs, and a water and sewage laboratory under the bureau of sanitary engineering.

Activities.—During 1929, 72,661 examinations were made by the bacteriological laboratory; these included chiefly diphtheria cultures, Wassermann tests, and examinations for intestinal parasites. A summary of the diagnostic activities is given on pages 98–99.

Fees.—No fees are charged for laboratory services.

Biologicals.—Typhoid vaccine is manufactured at the central laboratory and is distributed free of charge throughout the State. Silver nitrate ampules are purchased by the laboratory for free distribution throughout the State. (See p. 102.)

Research.—Problems related to immunology and laboratory diagnosis are studied in the laboratory.

CANNERY INSPECTION

Organization.—Cannery inspection was made a function of the health department in 1925, to provide for the inspecting and licensing of canneries engaged in the commercial canning of any agricultural food products, the sterilization of which, in the opinion of the State board of public health, required the use of a pressure cooker. An amendment was passed in 1927, adding fish and fish products to the foregoing.

Personnel.—The personnel in 1930 consisted of a chief inspector, 17 inspectors, and a stenographer.

Funds.—Funds derived from annual license fees of \$10 per year per plant are deposited by the State department of public health in the State treasury to the credit of the cannery inspection fund.

DIVISION OF SANITATION

The division of sanitation is composed of three sections as follows:

BUREAU OF SANITARY ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering in 1930 consisted of a chief, a resident engineer, an assistant sanitary engineer, a sanitary engineering aid, a part-time laboratory director, a biologist, a laboratory helper, a stenographer, a full-time and a part-time clerk.

Public water supplies.—To insure cleanliness and safety, permits are required by the State board of public health for public water supplies furnishing over 200 consumers and for any waterworks with regard to which complaint is made by a health officer.

Bottled waters.—There is no legislation concerning bottled waters.

Ice industry.—No specific legislation has been passed governing the ice industry.

Analysis.—Water supplies are analyzed as sampled by the bureau or by a health officer. If the water is used on common carriers, it is analyzed once a year.

Inspection.—Water-purification plants are inspected and surveyed irregularly as time permits; particular attention is given to questionable water supplies. Sewage works and disposal plants are examined and carefully surveyed. In 1929, 148 water supplies, 651 sewage-disposal plants, and 47 swimming pools were inspected.

Sewage disposal.—Permits for sewage disposal are required by the State board of public health in accordance with its regulation forbidding any nuisance or menace to health.

Camps and roadside water supplies.—There are no regulations concerning tourist and summer camps and roadside water supplies.

Swimming pools.—Permits are required for swimming pools on the score of cleanliness, safety, and healthfulness.

Laboratory.—A special laboratory is maintained under the bureau of sanitary engineering. Its activities are the analysis of drinking water, swimming-pool water, sewage, and shellfish, and the supervision and certification of local laboratories throughout the State at which water, sewage, and swimming-pool samples are examined. During 1929 a total of 1,308 examinations was made.

Shellfish.—Sanitary control of areas where shellfish are gathered is a function of this bureau.

BUREAU OF FOODS AND DRUGS

Personnel.—The personnel of the bureau of foods and drugs in 1930 consisted of a chief, a chemist-bacteriologist, two chemists, two stenographers, five inspectors, an inspector-chemist, and a student helper.

Activities.—The enforcement of the pure food laws and the food sanitation act is intrusted to the State department of public health.

Inspection.—The inspectors of the bureau of foods and drugs visit all food establishments and cold-storage warehouses. Their work is mainly in small towns and rural districts.

Milk supplies.—Milk supplies are under the control of the State department of agriculture.

Laboratory.—The work of the laboratory consists of the analysis of samples of suspected foods and drugs. About 2,500 samples were examined in 1929, with the result that about 20 per cent were found to be in violation of the law. The laboratory has also been actively engaged in the analysis of samples of feeding stuffs submitted by the inspectors in accordance with the provisions of the California feeding stuffs act.

SANITARY INSPECTION

Personnel.—The personnel for sanitary inspection in 1930 consisted of a chief sanitary inspector, three sanitary inspectors, and three field men for plague survey.

Activities.—The activities include sanitary surveys; investigation of sewage disposal and water supplies in places where permits are not required from the State board of public health; garbage disposal, and investigation of complaints with regard to garbage; abatement of nuisances; rabies control; and investigation of rodent prevalence and institution of control measures. A rodent-plague survey was started as a special activity in June, 1927, but since then has become a definite part of the program of sanitary inspection.

DIVISION OF PUBLIC HEALTH EDUCATION

The division of public health education is composed of three sections as follows:

BUREAU OF TUBERCULOSIS

Personnel.—The personnel of the bureau of tuberculosis in 1930 consisted of a chief, a field worker, an adviser on health education, an X-ray technician, an assistant X-ray technician, and three clerks.

Activities.—The activities of this bureau consist of: (1) The registration of cases of tuberculosis; (2) the inspection and supervision of institutions caring for cases of tuberculosis, including preventoria; (3) the administration of State aid to counties; (4) the conducting of motor X-ray clinics in high-schools, teachers' colleges, and industries.

Sanatoria.—The cities and counties own and operate the sanatoria. There are no State sanatoria, but the State department of public health subsidizes beds in institutions at \$3 per week per bed, up to the amount of \$300,000 per year. California has 6,900 beds in the public and private sanatoria of the State.

Dispensaries.—No dispensaries for tuberculous patients are conducted by the State department of public health. However, during 1929, 15,000 patients were examined through an X-ray motor clinic conducted by this bureau.

BUREAU OF CHILD HYGIENE

Organization.—The bureau of child hygiene was created in 1919 upon the acceptance of the Federal infancy and maternity act. The work has been conducted largely along educational rather than medical lines.

Personnel.—In 1930 the personnel of the bureau of child hygiene consisted of a chief, three pediatricians, a maternity home inspector, a supervising nurse, a statistical clerk, a stenographer, and a mailing clerk.

Maternal and prenatal hygiene.—A program has been arranged to include prenatal examinations. The bureau sent out 8,000 prenatal letter sets in 1929. Mothers' classes have been organized and instruction has been given by the nurses.

Lying-in hospitals.—The State department of public health has under its supervision 438 lying-in hospitals with a total capacity of 2,918 beds.

Orphanages.—Orphanages are licensed by the State board of public welfare.

Midwifery.—A survey of midwives was conducted in 1923, and 356 midwives were found in the State. Of these, 111 were licensed by the State board of medical examiners. The number of midwife confinements in California is small.

Ophthalmia neonatorum.—The State law requires the reporting of ophthalmia neonatorum cases within 24 hours to the local health officer. The use of silver nitrate is not compulsory, but the State department of public health distributes it free of charge.

Infant hygiene.—There were 255 infant health centers in the State in 1929. Of these, 25 were established through the activity of the bureau of child hygiene during the past two years. A total of 19,310 children up to 6 years of age were examined during 1928 and 1929.

Preschool hygiene.—For seven years a special campaign has been conducted during the spring to examine every child ready to enter school and to call to the attention of the parents the need for improvement in hygiene and for the correction of defects. In 1929 about 30,000 children were examined. The State does not attempt to provide facilities for the correction of defects. This is done by clinics and hospitals in the cities and by family physicians in the country.

School hygiene.—The medical examination of school children is a function of the State department of education.

BUREAU OF REGISTRATION OF NURSES

Personnel.—In 1930 the personnel of the bureau of registration of nurses consisted of a chief, two assistant inspectors of schools of nursing, four stenographers, and three part-time helpers.

Activities.—The activities of this bureau are: (1) The examination of nurses applying for registration (three examinations given annually); (2) the approval of credentials and applications of nurses registered in other States or counties who apply for registration without examination in California; (3) the certification of students for admission to schools of nursing (2,065 applicants admitted in 1929); (4) the inspection of accredited schools of nursing. In 1929, 2,778 new certificates and 11,402 renewals were issued by this bureau. All certificates must be renewed annually.

Funds.—Funds derived from renewal and registration fees are deposited in the State treasury and credited to the fund for the examination and registration of nurses.

TABLE 97.—*Total budget, State legislative budget for health work, and budgets by bureaus and divisions, by years*

CALIFORNIA

Bureau and division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$177,669	\$180,076	\$340,986	\$340,094	\$341,525	\$347,969	\$629,501	\$640,694
Total budget, exclusive of tuberculosis subsidy.....	150,169	152,576	293,486	292,594	256,525	262,969	259,501	369,082
State legislative budget, exclusive of tuberculosis subsidy.....	144,375	144,375	272,040	272,040	234,200	234,200	339,312	339,312
Central administration.....	22,900	22,900	70,685	66,220	55,830	49,000	55,250	55,250
Bureau of tuberculosis.....	10,000	10,000	15,000	15,000	15,000	15,000	30,000	30,000
Tuberculosis subsidy.....	27,500	27,500	47,500	47,500	85,000	85,000	270,000	271,612
Epidemiology.....	27,569	27,569	37,500	37,500	28,500	28,500	22,825	22,825
Bacteriological laboratory.....	18,175	18,175	27,500	27,500	25,000	25,000	43,495	43,495
Bureau of sanitary engineering.....	15,000	15,000	22,500	22,500	25,000	25,000	34,385	34,385
Bureau of registration of nurses.....	5,794	8,201	10,366	13,919	12,084	11,708	14,727	14,416
Bureau of food and drugs.....	29,000	29,000	42,935	42,955	42,511	43,260	45,517	46,102
Vital statistics.....	(²)	(²)	(²)	(²)	(²)	(²)	26,800	26,800
Sanitary inspection.....	(²)	(²)	(²)	(²)	(²)	(²)	17,700	17,700
Social hygiene.....			30,000	30,000	25,800	38,703	27,021	25,800
Bureau of child hygiene.....					10,000	10,000	126,780	138,920
Prevention of malaria.....					6,000	6,000		10,000
Public health nursing.....							5,000	5,000
Cannery inspection.....								
Orthopedics.....								

Bureau and division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$308,319	\$314,510	\$529,383	\$551,231	\$720,562	\$730,547	\$727,390	\$706,550
Total budget, exclusive of tuberculosis subsidy.....	238,319	244,510	279,383	301,231	420,562	405,547	407,390	386,550
State legislative budget, exclusive of tuberculosis subsidy.....	207,318	207,318	214,075	214,075	386,651	361,652	407,390	386,550
Central administration.....	45,020	45,020	49,019	49,019	49,370	49,370	46,870	46,870
Bureau of tuberculosis.....	9,000	9,000	22,500	22,500	21,820	21,820	23,950	23,950
Tuberculosis subsidy.....	70,000	70,000	250,000	250,000	300,000	325,000	320,000	320,000
Epidemiology.....	(¹)	(¹)	19,640	19,640	23,560	23,560	29,000	29,000
Bacteriological laboratory.....	30,060	30,060	23,150	23,150	25,202	25,202	26,333	26,332
Bureau of sanitary engineering.....	18,500	18,500	23,969	23,969	20,102	20,102	28,725	28,725
Bureau of registration of nurses.....	8,325	8,457	17,090	17,090	17,695	17,695	18,340	18,340
Bureau of food and drugs.....	31,670	31,670	34,342	34,343	35,732	35,732	41,565	41,565
Vital statistics.....	17,140	17,140	17,550	17,550	18,840	18,840	20,610	20,610
Sanitary inspection.....	12,500	12,500	17,264	17,265	18,335	18,335	24,640	24,640
Social hygiene.....	13,536	3,000	3,991	3,180	3,732	3,681	(²)	(²)
Bureau of child hygiene.....	22,760	39,355	48,460	41,654	50,049	58,797	41,680	20,840
Prevention of malaria.....	5,330	5,630	5,900	5,900	15,955	15,955	11,413	11,413
Public health nursing.....	7,500	7,500	10,000	10,000	12,500	12,500	15,805	15,805
Cannery inspection.....	3,600	14,480	36,507	54,685	63,010	63,010	74,360	74,360
Orthopedics.....					10,000	10,000	4,100	4,100

¹ Sheppard-Towner funds included. (See Table 98.)² Expenditures paid from a special fund, "Traveling and contingent." Itemized expenditures not available.³ Includes Federal aid. (See Table 98.)⁴ Budget for bacteriological laboratory includes epidemiology also.⁵ Included under central administration.TABLE 98.—*Total appropriations for State department of health, by years*

CALIFORNIA

Year	Total appropriation	Appropriation exclusive of tuberculosis sanatoria subsidy	Source of funds and amounts				
			State legislature	United States Children's Bureau	County	Federal social hygiene	Cannery license fees
1915.....	\$177,669	\$150,169	\$144,375				
1916.....	180,076	152,576	144,375				
1917.....	340,986	293,486	272,040				
1918.....	340,094	292,594	272,040				
1919.....	341,525	256,525	234,200				
1920.....	347,969	262,969	234,200				
1921.....	629,501	359,501	339,312				
1922.....	640,694	369,082	339,312	\$12,139			
1923.....	308,319	238,319	207,318	12,140			
1924.....	314,510	244,510	207,318	28,734			
1925.....	529,383	279,383	214,075	26,730	\$1,260	\$811	\$36,507
1926.....	551,231	301,231	214,075	21,184	287		54,685
1927.....	720,562	420,562	386,651	29,579	3,660	672	
1928.....	730,547	405,547	361,652	38,327	4,947	621	
1929.....	727,390	407,390	407,390				
1930.....	706,550	386,550	386,550				

COLORADO

STATE BOARD OF HEALTH

Organization.—The State board of health consists of nine members appointed by the governor with the approval of the senate. Each member must be a citizen and a voter.

Term of office and compensation.—The term of office is six years, the terms of three members expiring every two years. The members of the State board of health do not receive a salary. An appropriation is made for traveling expenses in the several divisions of the department of health.

Meetings.—Monthly meetings are held during the year. Special meetings are held occasionally upon call of the president or any three members.

EXECUTIVE OFFICER

Legal qualifications.—Every two years the board elects a president and a secretary from its own membership. As a member of the board the secretary must be a citizen and a voter. The secretary performs such duties as are prescribed by the board and is the executive officer except when the board is in session.

Term of office and compensation.—The secretary of the board of health serves for two years. Formerly the secretary received a salary of \$2,000 a year, but in 1925 this was vetoed by the governor; there is no salary attached to the position at present. As the director of the division of social hygiene the secretary receives \$4,000, \$5 a day from the embalming board for four or five days yearly, and \$12 a year from the United States Census Bureau. The sum of \$800 is allowed yearly for the traveling expenses of the board, and the secretary, as a member of the board, may draw on this amount.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive.—The State board of health may hold hearings concerning health matters under its jurisdiction. It has the power to make and enforce rules and regulations concerning sanitation, water pollution, sewage disposal, food adulteration, nuisances, communicable diseases, quarantine, and plumbing, to issue and revoke hospital licenses, and to deal with milk sanitation. The State dairy commissioner controls milk supplies. The enforcement of the medical practice law and midwifery are functions of the State board of medical examiners.

APPROPRIATIONS

Appropriations are made each year by divisions. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

Colorado - Organization of the State Department of Health in 1930

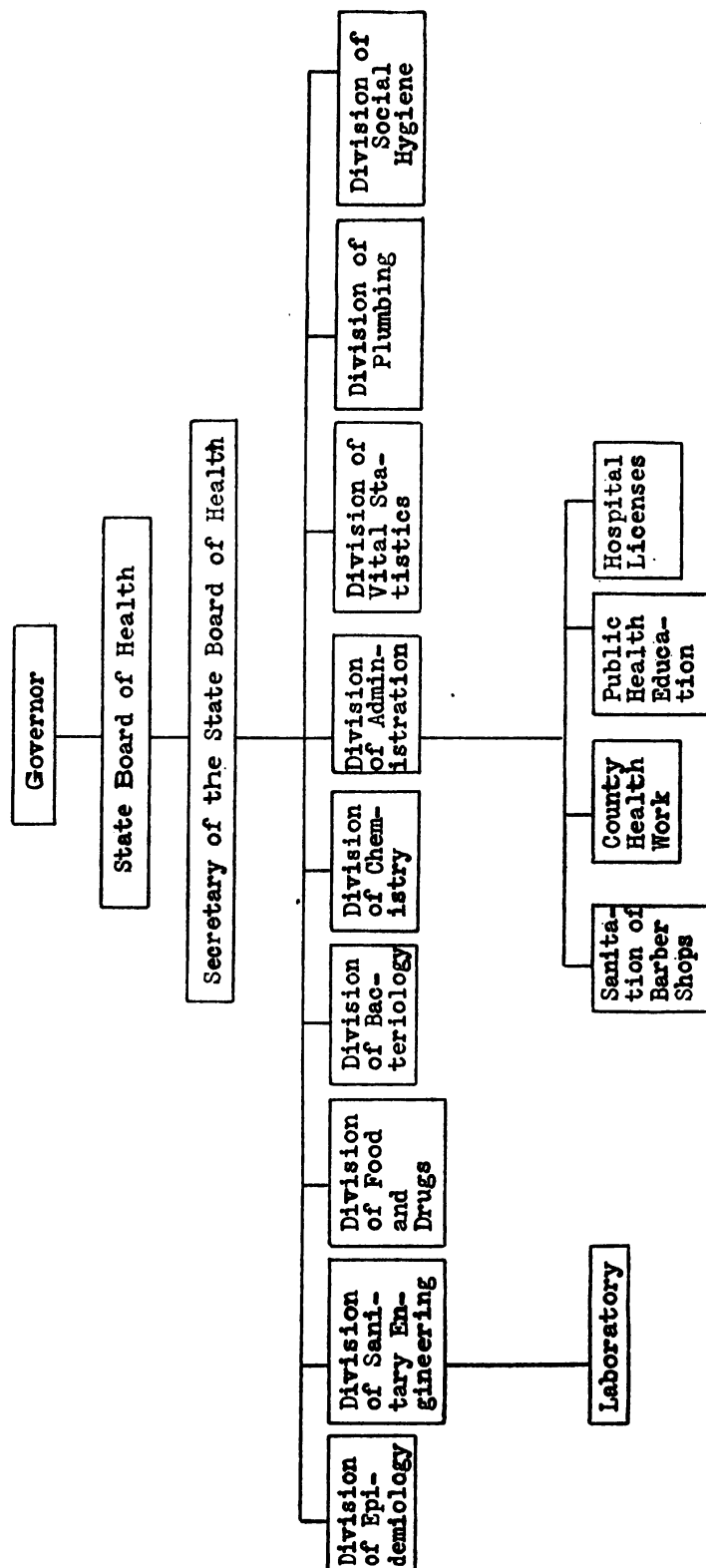


FIGURE 24

DIVISION OF ADMINISTRATION

Personnel.—In 1930, the secretary of the State board of health was the only member of the division of administration.

Civil service.—All employees of the State department of health are under civil service. Theoretically changes in the State administration do not affect the personnel of the department.

TABLE 99.—Divisions of the State department of health in 1930 ¹

COLORADO

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$2,100	1	(²)	(³)	(³)
Full-time county unit.....	9,300	4	\$3,000	\$4,200	\$7,200
Division of epidemiology.....	3,200	⁴ 2	1,800	600	2,400
Division of social hygiene.....	20,000	⁵ 6	⁶ 4,000	-----	-----
Division of vital statistics.....	4,700	⁷ 3	(⁸)	2,700	2,700
Division of bacteriology.....	7,100	2	3,600	1,500	5,100
Division of sanitary engineering.....	5,550	⁹ 3	3,000	1,500	4,500
Division of plumbing.....	11,200	2	2,400	1,200	3,600
Division of food and drugs.....	10,700	5	2,500	5,900	8,400
Division of chemistry.....	(¹⁰)	2	(¹¹)	(¹²)	(¹³)
Study of tuberculosis.....	1,000	-----	-----	-----	-----

¹ Total appropriation, \$74,850; total appropriation exclusive of tuberculosis sanatoria funds, \$74,850; State legislative appropriation, \$85,550.

² Formerly the executive officer received \$2,000. This was vetoed by the governor in 1925, and he now receives \$4,000 as director of the division of social hygiene.

³ Officials included whose time is devoted to more than one activity.

⁴ Executive officer is included.

⁵ Executive officer is State registrar.

⁶ This division is supported by fees.

⁷ Paid by the university.

Disbursement of funds.—Vouchers which are prepared by the secretary of the State board of health or by the division chiefs and signed by the president and secretary of the State board of health go to the auditing board and thence to the State auditor who issues warrants payable by the State treasurer. Salary vouchers go direct to the State auditor.

Purchases.—Purchases for departmental supplies are made on requisition to the State auditing board.

County health work.—A law passed in 1908 provides that the board of county commissioners of each county shall be the board of health. When local boards fail to act the State department of health has the power to assume control at the expense of the local community. At the close of 1930 one full-time county organization and two full-time city departments of health were in operation.

Publicity.—The secretary of the State board of health is in charge of the publicity of the health activities of the State.

Press service.—Occasional items are sent to the press.

Bulletin.—A bulletin is issued monthly to the local health officers and pamphlets are published from time to time.

Equipment.—The division of social hygiene owns seven motion-picture films. In addition the State department of health owns several portable exhibits.

Cooperation.—The State departments of health and education cooperate in carrying on their respective programs.

DIVISION OF EPIDEMIOLOGY

Personnel.—The State epidemiologist, assisted by a part-time clerk, was in charge of this division in 1930.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by the local health officers. Cases of diseases such as smallpox must be reported at once, and venereal diseases must be reported within 48 hours by the local health officers.

Quarantine.—Quarantine measures are under the control of the local health officers but the State department of health can exercise direct control if necessary.

Smallpox vaccination.—Smallpox vaccination is not compulsory but may be enforced by the board of education if an epidemic is threatened.

Emergency fund.—The State department of health has no emergency fund; the governor has a general fund which can be used at his discretion.

Tuberculosis control.—In the control of tuberculosis the State department of health acts in an advisory capacity only. Recently \$1,000 was appropriated by the general assembly for the use of the legislative committee for the study of tuberculosis in the State. The committee is to make a report and recommendations to the next assembly.

Clinics.—No tuberculosis clinics are maintained by the State department of health. During 1929, 8 local organizations conducted 471 clinics where 2,530 patients received treatment.

Sanatoria.—There are 21 private or semiprivate sanatoria in the State with a total capacity of 4,621 beds. There are no State tuberculosis sanatoria.

DIVISION OF SOCIAL HYGIENE

The division of social hygiene was created in March, 1919.

Personnel.—In 1930 the personnel of the division consisted of the director, who is secretary of the board of health, a stenographer, a record keeper of specimens for examination, a registered nurse, a serologist, a laboratory helper, four part-time clinicians, and a follow-up worker.

Clinics.—Educational activities are carried on by the State department of health in addition to four free clinics.

Treatments.—During 1929, 17,262 free treatments were given, of which 2,995 were salvarsan administrations. In order to render all possible aid to physicians who have not the necessary equipment, this division, has arranged for free bacteriological and serological examinations.

DIVISION OF VITAL STATISTICS

Personnel.—The secretary of the board is ex officio State registrar of vital statistics and has general supervision over all local registrars. In 1930 he was assisted by two clerks.

Registration districts.—The primary registration districts consist of cities, incorporated towns, and counties exclusive of cities and incorporated towns.

Local registrars.—The local registrars are appointed by the State board of health or State registrar and are paid 25 cents for each certificate issued by the county, city, or town.

Registration area.—Colorado was admitted to the registration area for deaths in 1906 and to the registration area for births in 1928.

Reporting of deaths.—The reporting of deaths was 99 per cent complete in 1929. Ninety-nine per cent were reported by physicians and 1 per cent by coroners. Deaths must be reported to the local registrars before burial, and these original reports are forwarded to the State registrar by the 5th day of the following month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in Colorado.

Reporting of births.—The reporting of births was estimated as being 95 per cent complete in 1929; 90 per cent were reported by physicians and 10 per cent by midwives. Births must be reported to the local registrars within 10 days and these reports are forwarded to the State registrar by the 5th day of the following month.

Stillbirths.—Stillbirths are reported as births and deaths.

Blanks and postage.—Blanks for recording the returns are supplied by the State department of health and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means the matter is reported at once to the coroner, who signs the death certificate.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians and midwives are licensed by the State board of medical examiners. Undertakers are licensed by the State board of embalming examiners. Hospitals, sanatoria, and lying-in institutions are licensed by the State board of health.

BACTERIOLOGICAL LABORATORY

Personnel.—In 1930 the personnel of the diagnostic laboratory consisted of a director and a technician.

Branch and private laboratories.—There are no branch laboratories, and the State department of health has no supervision over private laboratories.

Chemistry laboratory.—A chemistry laboratory is maintained at the University of Colorado, and the chemical examinations for the division of food and drugs of the State department of health are made by this laboratory. The State legislature appropriates money to the State university to cover the cost of these examinations. The division of sanitary engineering maintains a laboratory for the analyses of water samples.

Activities.—During 1929, 14,377 examinations were made by the central laboratory. The chief activities were diphtheria cultures and venereal-disease examinations. A summary of diagnostic activities of the laboratory is given on pages 98–99.

Fees.—No fee is charged for any service performed by the laboratory.

Biological products.—No biological products are manufactured or distributed.

DIVISION OF SANITARY ENGINEERING

Personnel.—In 1930 the personnel of the division of sanitary engineering consisted of a chief sanitary engineer, a part-time bacteriologist, and a stenographer.

Public water supplies.—The State department of health acts in an advisory capacity relative to public water supplies and water-purification plants and may make any examination it deems necessary. The plans for all public water supplies must be submitted to the State department of health for approval before installation.

Bottled waters.—There is no legislation concerning the bottling of spring waters. The division of food and drugs of the State department of health deals with bottled waters on the market.

Analysis.—Public water supplies are analyzed daily by local authorities in cities of the first class and by the State department of health upon request. Water-purification plants are inspected by the department of health usually once a year or when found necessary.

Ice industry.—No legislation has been passed concerning the ice industry.

Sewage disposal.—The State department of health acts in an advisory capacity relative to sewerage systems and sewage-treatment plants. All plans for the installation or alteration of sewer systems or treatment plants must be submitted to the State department of health for written approval.

Camps, swimming pools, and roadside water supplies.—The State department of health has made rules and regulations concerning the sanitary conditions of camps, swimming pools, and roadside water supplies.

Laboratory.—The division of sanitary engineering maintains a laboratory for the analyses of water samples.

BUREAU OF CHILD WELFARE

Organization.—The bureau of child welfare is a function of the State department of public instruction.

Lying-in hospitals and orphanages.—Maternity hospitals are licensed by the State board of health. Orphanages are not licensed.

Ophthalmia neonatorum.—The use of a prophylactic is required in the eyes of the new born.

Public-health nurses.—A State public-health nurse must be registered in the State. Requirements for local nurses are regulated by local boards of health.

DIVISION OF FOOD AND DRUGS

Personnel.—In 1930 the personnel of the division of food and drugs consisted of a food commissioner, a stenographer, a chief inspector, and two assistant inspectors.

Activities.—The purpose of this division is to enforce an act for preventing the manufacture, sale, or transportation of adulterated, misbranded, poisonous, or deleterious foods, drugs, medicines, and liquors.

Food handlers.—The medical examination of food handlers is not required by the State department of health.

Inspection.—The inspection of places where food is handled is required by law and is carried out by the State department of health.

Shellfish sanitation.—Shellfish sanitation is not a function of the State department of health.

Milk laws.—The enforcement of the milk laws is entrusted to the State dairy commissioner. There is no State regulation concerning the pasteurization of milk.

DIVISION OF PLUMBING

Personnel.—The personnel of the division of plumbing in 1930 consisted of the State plumbing inspector and a stenographer.

Activities.—The State plumbing code was adopted in June, 1917, providing for the supervision, regulation, and inspection of plumbing and the licensing of plumbers by the State board of health.

DIVISION OF CHEMISTRY

Activities.—Chemical examinations for the division of food and drugs of the State department of health are made by the State chemist who is the head of the division of chemistry in the State university. The legislature appropriates money directly to the university to cover the cost.

TABLE 100.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

COLORADO

Divisions	1915	1916	1917	1918	1919	1920
Total budget.....	\$21,367	\$20,050	\$19,550	\$19,550	\$42,500	\$45,296
State legislative budget.....	21,367	20,050	19,550	19,550	34,000	40,550
Division of administration.....	1,208	1,000	1,500	1,500	2,000	2,000
Division of vital statistics.....	1,200	1,200	1,200	1,200	1,500	1,500
Division of bacteriology.....	2,000	2,000	1,700	1,700	2,250	2,250
Division of food and drugs.....	9,708	8,600	8,200	8,200	9,900	9,900
Division of venereal disease.....					17,000	13,246
Division of sanitary engineering.....						
Full-time county health unit.....						
Division of plumbing.....						
Division of epidemiology.....						
Study of tuberculosis.....						

Divisions	1921	1922	1923	1924	1925
Total budget.....	\$66,118	\$63,050	\$66,339	\$66,922	\$61,053
State legislative budget.....	61,050	61,050	65,450	65,450	51,190
Division of administration.....	2,000	2,000	2,000	2,000	5,450
Division of vital statistics.....	1,500	1,500	1,500	1,500	1,500
Division of bacteriology.....	9,200	9,200	7,400	7,400	6,650
Division of food and drugs.....	11,200	11,200	11,400	11,400	8,900
Division of venereal disease.....	24,068	22,000	20,889	20,222	20,000
Division of sanitary engineering.....				1,922	8,096
Full-time county health unit.....					8,775
Division of plumbing.....					
Division of epidemiology.....					
Study of tuberculosis.....					

Divisions	1926	1927	1928	1929	1930
Total budget.....	\$69,974	\$68,067	\$66,330	\$75,050	\$74,850
State legislative budget.....	58,158	58,490	56,750	65,550	65,550
Division of administration.....	4,250	3,600	2,100	2,100	2,100
Division of vital statistics.....	2,700	4,700	4,700	4,700	4,700
Division of bacteriology.....	6,650	6,500	6,500	7,100	7,100
Division of food and drugs.....	11,800	10,700	10,700	10,700	10,700
Division of venereal disease.....	20,000	20,000	20,000	20,000	20,000
Division of sanitary engineering.....	17,116	17,227	17,230	15,750	5,550
Full-time county health unit.....	11,700	9,300	9,300	9,300	9,300
Division of plumbing.....	5,758	6,040	5,800	11,200	11,200
Division of epidemiology.....				3,200	3,200
Study of tuberculosis.....				1,000	1,000

¹ U. S. Public Health Service funds included. (See Table 101.)² Rockefeller Foundation funds included. (See Table 101.)³ Local funds included. (See Table 101.)TABLE 101.—*Total appropriations for State department of health, by years*

COLORADO

Year	Total appropriation	Source of funds and amounts						
		State legislature	U. S. Public Health Service	County	County towns	Rockefeller Foundation	U. S. collaborating sanitary engineer	Red Cross
1915.....	\$21,367	\$21,367						
1916.....	20,050	20,050						
1917.....	19,550	19,550						
1918.....	19,550	19,550						
1919.....	42,500	34,000	\$8,500					
1920.....	45,296	40,550	4,746					
1921.....	66,118	61,050	4,068					
1922.....	63,050	61,050	2,000					
1923.....	66,339	65,450	889					
1924.....	66,922	65,450	222					
1925.....	61,053	51,190		\$4,237	\$2,213	\$1,200	\$49	\$450
1926.....	69,974	58,158	116	5,650	2,950	2,675	288	600
1927.....	68,067	58,490	277	5,550	1,150	2,500		600
1928.....	66,330	56,750	280	5,550	1,150	2,000		600
1929.....	75,050	65,550	200	2,450	5,250	1,000		600
1930.....	74,850	65,550		6,550	1,650	500		600

CONNECTICUT

PUBLIC HEALTH COUNCIL

Organization.—The State Department of Health of Connecticut consists of a commissioner of health and a public-health council. The latter is composed of six members in addition to the commissioner, who is chairman; at least two members are physicians and two sanitary engineers. The governor appoints two members every two years.

Term of office and compensation.—The term of office of the members of the council is six years. The actual and necessary expenses which they incur in the performance of office duties are paid by the department.

Meetings.—The council meets at least once in three months. There are on an average 10 to 15 meetings a year. Meetings are held at the request of the commissioner or of four members.

EXECUTIVE OFFICER

Legal qualifications.—The commissioner of health must be a physician, graduated from an incorporated medical college recognized by one of the examining board; he must have had at least five years of actual practice and must be skilled in sanitary science and experienced in public-health administration.

Terms of office and compensation.—The commissioner is appointed by the governor for six years. He receives a salary of \$8,000 as the commissioner of health, and \$5 per day when in session with the State board of examiners of embalmers. The latter compensation averages about \$30 a year. All his actual traveling expenses are paid.

POWER OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The public health council establishes a sanitary code and has the authority to prescribe the qualifications of the directors of the bureaus of the State department of health and of all other appointees of the department. The State department of health may hold hearings in regard to matters concerning general sanitation, water pollution, sewage disposal, communicable diseases, nuisances, enforcement of medical practice and midwifery laws, and violation of permit to sell clinical thermometers. In addition, it may render decisions on special cases in relation to these matters.

The executive power of the council is vested in the commissioner of health. According to the State statutes, the department of health has legislative powers concerning water supplies, sewage disposal, sanitation in general, communicable diseases, nuisances, and quarantine measures. Supervision of milk supplies and the prevention of adulteration of food are functions of the dairy and food commissioner.

Connecticut - Organization of the State Department of Health in 1930

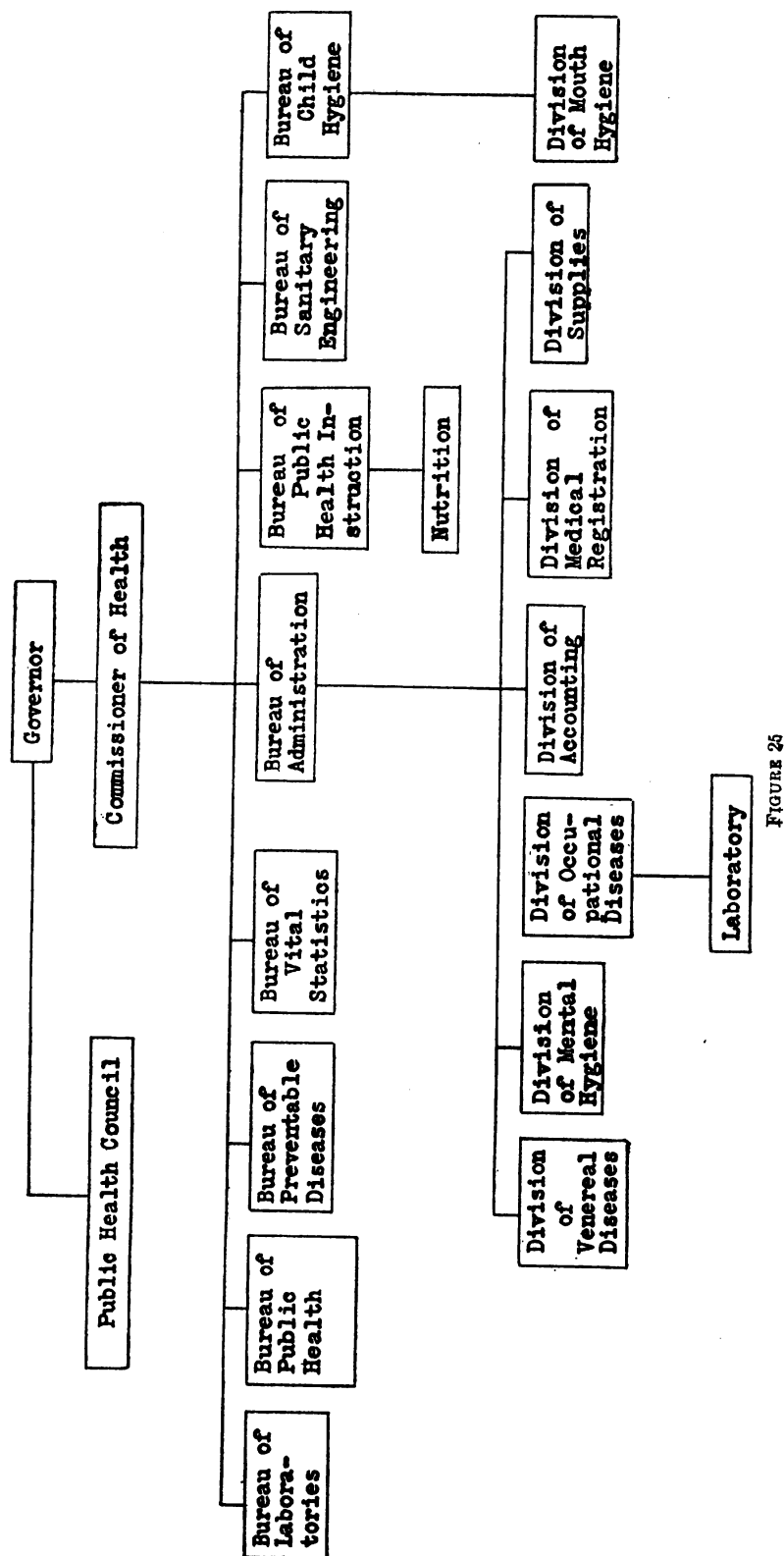


FIGURE 25

Licenses are granted by the commissioner on recommendation of the examining boards of medicine and surgery, osteopathy, chiropractic, naturopathy, midwifery, and chiropody. The enforcement of the medical practice laws is a function of the State department of health. Authority is also given to license hospitals in the State other than hospitals for the insane, maternity hospitals, and State-aid hospitals, including tuberculosis sanatoria.

APPROPRIATIONS

State legislative appropriations are made biennially to the separate bureaus and have increased from \$24,000 in 1916 to \$324,309 in 1930. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 102.—*Bureaus and divisions of the State department of health in 1930*¹

CONNECTICUT

Bureaus and divisions	Total budgets by bureaus and divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$31,500	13	\$8,000	\$15,298	\$23,298
Antitoxin and vaccines.....	25,000	(²)			
Bureau of preventable diseases.....	27,507	6	5,904	8,920	14,824
Division of venereal diseases.....	17,067	3	4,248	4,405	8,653
Bureau of vital statistics.....	20,723	12	4,260	13,328	17,588
Bureau of laboratories.....	73,667	32	4,690	51,645	56,335
Bureau of sanitary engineering.....	31,187	8	4,548	16,591	21,139
Bureau of child hygiene.....	34,660	11	4,740	17,441	22,181
Division of mental hygiene.....	17,330	5	5,000	4,734	9,734
Bureau of public-health nursing.....	25,025	5	3,250	6,333	9,583
Bureau of public-health instruction.....	7,156	2	3,096	1,440	4,536
Division of occupational diseases.....	13,487	3	4,750	4,817	9,567

¹ Total appropriation, \$324,309; total appropriation exclusive of tuberculosis sanatoria funds, \$324,309; State legislative appropriation, \$324,309.

² Under division of supplies, bureau of administration.

BUREAU OF ADMINISTRATION

Organization.—The commissioner of health is the administrative head of the State department of health. He has the power to appoint all employees with the approval of the council.

There are three divisions under the bureau of administration:

(1) The division of supplies which makes all purchases and fills all requisitions. The distribution of antitoxins and vaccines comes under this division.

(2) The division of medical registration which licenses all physicians, midwives, and chiropodists; investigates all physicians before licensing; carries out annual registration of all physicians, chiropractors, naturopaths, osteopaths, chiropodists, midwives, and registered nurses licensed to practice in the State.

(3) Division of accounting.

Personnel.—The personnel of the bureau of administration in 1930 consisted of the State commissioner of health, two accountants, a secretary, a stenographer, a telephone operator, and two clerks. The personnel of the division of supplies, which is under this bureau, consisted of a chief, two mechanics, a shipping clerk, and a librarian who also acted as secretary to the chief of the division.

Civil service.—The employees of the State department of health are not under civil service. Changes in State administration do not affect the personnel of the department.

Disbursement of funds.—Funds are distributed by the State comptroller upon receipt of a requisition approved by the commissioner.

Purchases.—Purchases are made through the chief of the division of supplies.

County health work.—There is no division of county health work in the State and no county health officers as the term is generally understood. Such officers in this State are attorneys who prosecute violations of the public health law, appoint and remove town health officers, and approve health officer bills. Towns may unite to form sanitary districts, but as yet there are no such districts in existence.

Supervision.—The supervision of local health organizations is under the commissioner, who may remove any local health officer for good cause; and in case a local organization fails to carry out the rules and regulations prescribed in the sanitary code, the State commissioner may take charge and do whatever may be necessary at the expense of the local government.

BUREAU OF PREVENTABLE DISEASES

Personnel.—The personnel of this bureau in 1930 consisted of a director, two epidemiologists, a secretary, and two clerks.

Activities.—The chief lines of activity are as follows: Receiving and tabulating morbidity reports; studying statistical data compiled from such reports; emergency investigations to discover sources of infection in outbreaks of disease; consultations with local health officers for the diagnosis of communicable diseases; field studies of disease incidence and prevention; lectures on methods of health protection; preparation of material to be printed for the information of the public; and inspection of hospitals for licensing.

Reports of diseases.—Physicians report cases of communicable diseases to the local health officers, who in turn report daily to the State health department all such cases reported to them. Certain diseases and conditions must be reported by telephone or telegraph.

Quarantine.—The local health officers have jurisdiction over quarantine procedures. In the absence of a local health officer, or upon his failure to act, the State department of health has power to enforce quarantine.

Smallpox vaccination.—Local school boards have the power to require vaccination against smallpox as a condition upon which children may attend school. General vaccination can be ordered by health officers.

Emergency fund.—No specific fund is provided for use in case of an extensive or severe outbreak of disease, but the State board of finance and control is empowered to provide funds when necessary to meet emergency situations.

Tuberculosis sanatoria.—The institutional care of tuberculosis patients is under the State tuberculosis commission, which is not a part of the State department of health. This commission operates five State sanatoria with a total capacity of 866 beds. The appropriation for these sanatoria in 1930 was \$2,028,500. The tuberculosis commission visits and inspects other tuberculosis sanatoria that receive State aid, and holds clinics. In addition, there is one municipal sanatorium with 25 beds and two private sanatoria with 175 beds.

Clinics.—The commission holds clinics in various parts of the State. During 1929, 334 clinics were conducted at 18 stations and 1,522 patients were treated. Two local organizations also held a total of 452 clinics during 1929 and treated 3,880 patients.

DIVISION OF VENEREAL DISEASES

The control of venereal diseases was started in 1919.

Personnel.—In 1930 the work was carried on by a director, who was assisted by a nurse acting as a field worker and a secretary.

Reporting of venereal diseases.—Physicians are required to report cases to the health officer by number, except when a patient is employed in handling food or when the patient fails to return for treatment while in the communicable stage of the disease. In such instances the name, address, age, and occupation are reported. The health officer may cause the examination of suspected persons and direct such persons to report regularly for treatment to a licensed physician or to a public clinic. If any such person is regarded as a public-health menace, the health officer may order the removal of this person to an isolation hospital.

Venereal-disease clinics.—There were, in 1930, 21 treatment stations under State supervision. The State pays \$2 for each salvarsan treatment given at these stations. In addition, there are 8 clinics supported by cities or towns and 17 hospitals and cooperating institutions for indigents to which the State furnishes salvarsan. A worker visits the clinics periodically and establishes new clinics in strategic centers. The outlying districts of the State are nearly all supplied with stations so that a patient in any section may obtain treatment free of charge.

Treatments.—During 1929, 11,218 free salvarsan treatments were administered at clinics and stations for the treatment of syphilis.

Follow-up work.—A full-time nurse cooperates with the clinics, treatment stations, etc., promoting proper attendance, seeking out sources of infection, and following up all cases and family contacts requiring further treatment. It is desired to give the most assistance to towns and cities which do not have facilities to follow up the delinquents.

Educational activities.—Local organizations throughout the State are becoming familiar with the facilities available in the division and are using this knowledge as a basis for exhibitions and lectures. The division carries on a general education program in industrial organizations, encouraging the routine Wassermann examination of employees. It encourages various organizations to use material such as motion pictures, slides, strip films, and printed matter. Numerous lectures are given by the staff. The division aims to reach the adolescent through the parent.

Police powers.—The division depends upon local and State police for any drastic measures and is receiving gratifying results from this procedure.

BUREAU OF VITAL STATISTICS

Organization.—The recording of vital statistics has been carried on by the State department of health since 1878.

Personnel.—The commissioner of health is, by State law, the superintendent of vital statistics, but in 1930 the department of vital statistics was under a full-time director, who was assisted by two statisticians, a secretary, a clerk, two tabulators, and four punch-card operators.

Registration district.—The towns are the registration districts.

Local registrars.—The town clerks, who are elected by the people, are the local registrars. In the cities the registrars are appointed by the mayor and his council. The local registrars are paid 20 cents for each birth and death certificate issued and 25 cents for each burial permit. Physicians, midwives, and undertakers also receive 25 cents for each certificate issued. These fees are paid by the local government.

Registration area.—Connecticut was admitted to the registration area for deaths in 1890 and to the area for births in 1915.

Reporting of deaths.—In 1929 it was estimated that 99 per cent of the deaths occurring in the State were reported; all were reported by physicians and osteopaths. Deaths must be reported to the local registrar at once, and he in turn reports to the State department of health on or before the seventh day of each month.

Legal standards.—The model law has not been adopted, but adequate laws are in use. The standard certificate is not used in this State. The international list of the causes of death has been adopted.

Reporting of births.—In 1929 it was estimated that between 95 and 97 per cent of all births were reported; of these, physicians reported 87.2 per cent and midwives 12.8 per cent. Births must be reported within 10 days to the local registrar who in turn reports to the State department of health on the 15th day of each month.

Blanks and postage.—The forms used for recording the returns are supplied by the bureau of vital statistics; the local government supplies the postage.

Stillbirths.—A separate form is used for stillbirths. A stillbirth under the State law is a "foetus born after a known period of gestation of not less than 28 weeks, or measuring at least 13 $\frac{1}{10}$ inches from the crown of the head to the sole of the heel, the body being fully extended, in which foetus there is no attempt at respiration, no action of the heart, and no movement of voluntary muscles."

Burial permit.—A burial permit is necessary and is issued by the local registrar.

Unlawful death.—In case death is thought to be caused by unlawful means the medical examiner for the town must be notified; he in turn notifies the coroner for the county. The latter signs the death certificate. Finger prints and a photograph of unidentified dead are required; a copy of each is sent to the local registrar, the State police department, and the State department of health.

Licensing.—Physicians and midwives are licensed by the State department of health. Undertakers and embalmers are licensed by the State board of examiners of embalmers.

Annual report.—An annual registration report is published containing statistics relating to births, deaths, and marriages.

BUREAU OF LABORATORIES

Location.—The State laboratory was organized in 1906 and located at Wesleyan University. During 1917 it was moved to New Haven, and in 1924 to Hartford.

Personnel.—The personnel of the laboratories in 1930 consisted of a director, an assistant director, a secretary, a research biologist, three bacteriologists, five chemists, three serologists, three laboratory technicians, seven laboratory helpers, seven stenographers and clerks.

Organization.—Under the bureau of laboratories there are the following divisions:

(1) The division of administration, which has charge of (a) the organization and execution of the work of the bureau, (b) the coordination of the activities of the other divisions, (c) the approval as to their scientific accuracy of all reports prepared by the bureau, (d)

the inspection of laboratories for approval, (e) the inspection of plants of manufacturers of clinical thermometers.

(2) The division of records, under the charge of the chief clerk, who is responsible for the clerical accuracy of reports and correspondence. All specimens are received and given a serial number, after which they are delivered to the proper scientific division. All laboratory records are kept in this division and all reports are typed and checked.

(3) The division of internal laboratory service handles the making of media, the preparing and sending out of laboratory outfits and containers, the cleaning and sterilizing of laboratory apparatus and supplies, and the opening and numbering of all specimens. About 15,000 wax ampules containing silver nitrate solution are manufactured each year in this division.

(4) The division of microbiology handles the work included under the diagnostic division and, in addition, the bacteriological examinations of milk, water, sewage, ice, and sea food.

(5) The serology division carries on both the complement fixation technique (Wassermann test) and the Kahn test on blood sera and spinal fluids. In addition, the divisional staff prepares all the antigens, amboceptors, and reagents used, and furnishes these materials to a number of laboratories in the State making serodiagnoses of syphilis.

(6) The division of chemistry and physics carries on the chemical examinations of specimens of milk, cream, water, ice, sewage, river water, and trade wastes and the physical testing of clinical thermometers. The colloidal gold test for syphilis is made in this division.

(7) The division of research and investigations has up to the present been more or less a theoretical division under the director, but rather extensive special studies have been made on undulant fever, milk-borne scarlet fever, the Connecticut modification of the test for visible dirt in milk, and clinical thermometer methods. A research biologist was placed in charge of the work in July, 1930.

Branch laboratories.—Eight of the larger cities have their own laboratories. These are visited at least annually by the director of laboratories. They are not supported by State funds.

Registration of laboratories.—There are 25 laboratories in the State that have been approved for diagnostic bacteriological examinations under the provisions of the sanitary code, and 14 that have been approved for milk examinations under the Federal statutes. In addition, 28 public health laboratories are required to register annually under the sanitary code. A certificate is issued by the commissioner to those laboratories which are approved, establishing them as approved laboratories.

Special laboratories.—An industrial hygiene laboratory is also maintained by the State department of health.

Activities.—During 1929, 118,346 examinations were made. The chief examinations were nose and throat cultures, serological blood tests, clinical thermometer tests, and milk and water analyses. A summary of activities of the laboratory is given on pages 98–99.

Fees.—No charge is made for any laboratory service.

Biological products.—Twenty-five thousand dollars a year is appropriated for the purchase of biological products. The State emergency fund is used for additional needs. Biological products are not manufactured by the laboratory but are distributed free of charge to physicians through the division of supplies with the exception of antirabic serum which is paid for by the local government out of the dog-tax funds.

Research.—Special investigations are carried on by the laboratories from time to time as discussed above.

BUREAU OF SANITARY ENGINEERING

The bureau of sanitary engineering was organized in 1917.

Personnel.—In 1930 the personnel of this bureau consisted of a director, three assistant sanitary engineers, two sanitary inspectors, a secretary, and a stenographer. Two sanitary inspectors are employed in addition during three months in the summer on oyster bed, bathing beach, and summer resort sanitation.

Public water supplies.—Supervision of public water supplies is delegated to the State department of health, which has comprehensive police powers. The department approves all plans for new public water supplies and may order any changes necessary.

Bottled waters.—The control of bottled waters is a function of the State dairy and food commission.

Analysis and inspection.—There are 110 public water supplies in the State, and most of these supplies are analyzed monthly. All public water supplies are analyzed at least once every three months. Field inspections are also made by this bureau. There are 70 purification plants which are inspected quarterly. All double check-valve installations on existing cross connections are inspected and tested every three months. Public watersheds are inspected in detail about once a year.

Ice industry.—The State department of health has comprehensive police powers. The State laws prohibit the cutting of ice on rivers within 2 miles of any sewage outlet into the stream or tributaries.

Sewage disposal.—The State department of health may investigate any sewage-disposal plant and order alterations if conditions endanger or prejudice the public health. General supervision of operation of public sewage-disposal plants is carried out by this bureau. Plans for new sewage-treatment plants are approved by the State department of health. A new State water commission was established in 1925 by

the legislature to take charge of measures for prevention of pollution of streams and harbors with sewage and industrial wastes. This commission was granted wide police powers. It also approves plans for new sewage and refuse treatment plants.

Camps.—In 1929 inspection of 212 summer camps, 82 summer boarding houses, and 226 roadside eating places was made by this bureau.

Roadside water supplies.—These supplies are examined in cooperation with the State highway department and safe supplies are posted.

Swimming pools.—This bureau cooperates with local authorities in supervising the sanitary conditions at approximately 50 swimming pools.

Abattoirs.—The inspection of slaughterhouses is a function of the bureau of sanitary engineering. One hundred and six such inspections were made in 1929. Licenses are granted by local authorities.

Shellfish sanitation.—The inspection of shellfish beds and of the shucking houses is a function of the bureau of sanitary engineering. The commissioner of health issues certificates and permits covering this work.

BUREAU OF CHILD HYGIENE

The bureau of child hygiene was organized in 1919.

Personnel.—In 1930 the personnel consisted of a director, a conference physician and superintendent of midwives, the chief of the division of mouth hygiene, a dental hygienist, the supervisor of field nurses and field organizer, three field nurses, a secretary and two clerks.

Prenatal and maternal work.—Reduction of infant mortality is one of the primary aims of this bureau. Through the prenatal classes, its workers are demonstrating to mothers the necessity of careful preparation for the birth of the child and for correct care after its birth. Prenatal letters, literature on baby hygiene, and birth certificates are sent out by this bureau.

Midwifery.—At the end of 1929, 106 licensed midwives were practicing in the State. Noteworthy progress has been made in the registration, instruction, and supervision of midwives. Unceasing vigilance is maintained to check the practice of unlicensed midwives and to ascertain that those licensed are observing statutory regulations. In 1929, a law was passed allowing midwives to use a fluid extract of ergot. The State department of health does not examine midwives, but it issues the licenses after word is received from the Connecticut examining board of midwifery that the applicants have been approved by the board.

Ophthalmia neonatorum.—Every licensed midwife is required to put a 1 per cent solution of silver nitrate in the eyes of the child imme-

diately after its birth. Cases of ophthalmia neonatorum must be reported.

Lying-in hospitals and orphanages.—Maternity hospitals are licensed by the local authorities. Orphanages are licensed by the State department of child welfare.

Infant and preschool hygiene.—One of the outstanding features of the work of this bureau is well-child conferences held in various towns throughout the State. There were 54 of these in 1929. The plan for the organization of these conferences has been developed along businesslike lines; the aim is to place, as far as possible, the burden of conference work upon the community. A field organizer visits each town, making application for a conference to study the situation. Whenever a conference is opened, the local doctors furnish the professional service, while the citizens of the town aid in the maintenance and executive management. When conferences are held in towns where there are no resident doctors, a physician from the department is in attendance. The chief purpose of the conference is the examination of children from infancy through the preschool age. The value of the well-child conference can not be properly measured in one or two years. Its effect is largely cumulative, but a survey of the past year's conferences shows that those previously organized have been accepted as permanent institutions by the communities.

School hygiene.—In each town or city of 10,000 or more medical inspection of school children is required by law. School nurses are paid by towns as teachers of hygiene and school physicians are paid from school funds. Every school physician must make an examination, at least once a year, of all children assigned to him, and such further examinations of teachers, janitors, and school buildings as he may deem necessary.

Summer round-up.—The summer round-up now holds an important place in the field of child hygiene. The 4 to 6 year old group of children, or the children who will enter school for the first time in the following fall, are given a thorough physical and dental examination. Health talks are given the mothers, but all defects requiring medical or surgical attention are reported to the family physician for consultation and advice. In 1929, 98 summer round-ups were held. There were requests for many more that could not be carried out because of a lack of field workers.

DIVISION OF MOUTH HYGIENE

Organization.—The division of mouth hygiene was established as a branch of the bureau of child hygiene in September, 1924. The work of the dental hygienist is to make surveys of dental clinics in operation in the towns throughout the State and to prepare literature on the care of the mouth. The program is now confined entirely to the preschool children.

DIVISION OF MENTAL HYGIENE

Organization.—The organization of this division took place in 1920, but it was not until 1921 that State funds were available for its maintenance.

Personnel.—The personnel of the division consisted in 1930 of a psychiatrist, two psychiatric social workers, and a secretary.

Activities.—This division furnishes information regarding the extent of nervous and mental disorders and the State's facilities for the care of patients with such disorders; gathers statistics and makes surveys of mental hospitals, psychiatric clinics, etc.; and publishes periodic reports; gives assistance in the establishment of local mental hygiene clinics, for the purpose of correcting incipient mental symptoms in adults and behavior difficulties in children; prepares and distributes articles and leaflets on mental hygiene and child training and maintains a reference and bibliographic library; arranges courses of lectures or gives talks before groups of parents, school groups, nurses, physicians, etc., on general or specific subjects concerning mental hygiene; provides technical or advisory service to any person or to any institution, State or private; assists in the training of social workers and nurses for mental hygiene work in the State; cooperates with the department of education in the rating and proper placement of children and the establishment of adequate facilities for the training of the mentally handicapped; and assists in the adjustment of mental hygiene in industry.

Mental hygiene clinics.—In 1930 there were 21 general clinics for this work conducted by various organizations. When a clinic is being organized the State hospital supplies the psychiatrist, and the division of mental hygiene the social worker. When the clinic is well established the maintenance is transferred to the local organization. A mental-hygiene institute was conducted during 1930, giving a 3-week course.

BUREAU OF PUBLIC-HEALTH NURSING

The bureau of public-health nursing, formerly a part of the bureau of child hygiene, was made a separate division in 1923. The 1927 Legislature provided State aid for local public-health nurses.

Personnel.—The personnel in 1930 consisted of a director, two field nurses, a secretary, two clerks, and other part-time clerks to assist in the annual registration of nurses.

Activities.—Assistance is given in organizing public-health nursing services in towns throughout the State and guiding the communities in developing their programs on sound public-health principles. Local nurses are aided in maintaining a standard of professional efficiency through a personal-advisory service, through a loan library, and through department pamphlets and educational material. Nursing

surveys are made and monthly reports tabulated and evaluated as a basis for development and extension of community health programs. The bureau also issues annual registration certificates to all State registered nurses. The director is the State nursing field representative for the American Red Cross.

Eligibility requirements.—Nurses on the staff of the department of health must be graduates of accredited training schools, must be registered in the State, and must have had postgraduate training and experience in public health, and, in addition, some knowledge of rural communities. The standards prevailing for local nurses working alone are graduation from an accredited training school, State registration, and at least a 4-month course in public health or six months' training under supervision.

Number of nurses.—In 1930 there were 97 towns employing a total of 363 nurses, of which 45 were part-time school nurses. In addition, there were 157 school nurses, 139 industrial nurses, and 17 nurses in social-service work. The ratio is about one nurse to each 2,427 persons. Most of the support for public-health nurses comes from private organizations, but of the 97 towns having nursing services 67 are subsidized from public funds and 11 are supported entirely by funds from the official government.

BUREAU OF PUBLIC-HEALTH INSTRUCTION

Personnel.—The bureau of public-health instruction was organized in 1923. The personnel in 1930 consisted of a director and a secretary.

Activities.—The bureau keeps in touch with local groups throughout the State to stimulate interest in local health instruction and assist in planning for health meetings.

Press service.—All the newspapers in the State are on the mailing list of the department for the weekly and monthly bulletins.

Bulletins.—A weekly and a monthly bulletin are published. The weekly bulletin, prepared by the department staff, has a circulation of 1,200, including health officers, the press, the legislators, libraries, hospitals, nurses, and other health leaders. The monthly bulletin, printed at the State reformatory, reaches 4,800, including those on the weekly mailing list, the physicians of the State, State departments of health, and a large miscellaneous list. The latter publication carries the monthly vital statistics, incidence of diseases, and timely articles on health written by the department staff. Leaflets on special health subjects are prepared in each bureau. These are distributed through local health officers, in connection with talks by the staff and at health exhibits at fairs.

Equipment.—The film library consists of 51 standard-width health films and 20 narrow-width films. An operator is available to show films when local equipment is not available. Three projectorscope

are in use, two for standard-width film and one for narrow-width film. There were 280 film showings in 1928-29. About 1,000 slides depicting health activities are used by members of the staff to illustrate talks. These are also lent to local leaders. Four stereopticon lanterns are available in connection with the slides. Thirty reels of strip films, or still films, are in use. An automatic delineascope is available in connection with these. Nine hundred posters are in use for exhibits.

Nutrition activities.—As nutritionist, the director of the bureau gives lectures on nutrition and health instruction, arranges for and gives short courses in nutrition to local leaders, prepares nutrition bulletins and nutrition exhibits.

Cooperation.—The State department of health cooperates with other State departments as the occasion arises.

DIVISION OF OCCUPATIONAL DISEASES

Organization.—The division of occupational diseases was organized in 1928, though funds were available in 1927. Activities had been carried on in previous years by the bureau of preventable diseases.

Personnel.—The personnel of the division in 1930 consisted of a chief, an industrial hygienist, and a secretary.

Activities.—The activities of this division include the securing and classifying of physicians' reports of occupational diseases, thus providing a source of information for physicians, industries, or any agencies interested in the cause, treatment, or prevention of occupational diseases; making field studies of workroom environment, including special determination of gases, dusts, fumes and toxic materials, air velocity, temperature, humidity, general ventilation, illumination, or any conditions or processes thought to be affecting the health of the employees; and lecturing to various interested groups.

Reports.—The State law requires physicians to report to the State department of health all cases of occupational diseases of which they have knowledge. These reports are confidential. The law provides that no report shall be admissible as evidence in any action at law or in any action under the workman's compensation act. A fee of 50 cents is paid to the physician making the report.

Laboratory.—A well-equipped laboratory is provided in which necessary physical and chemical determinations incident to the control of occupational diseases may be made.

TABLE 103.—*Total budget, State legislative budget for health work, and budgets by bureaus and divisions, by years*

CONNECTICUT

Bureaus and divisions	1916	1917	1918	1919	1920	1921	1922	1923
Total budget.....	\$24,000	\$24,000	\$42,600	\$54,721	¹ \$103,685	^{1,2} \$95,991	^{1,2} \$142,737	¹ \$140,594
State legislative budget.....	24,000	24,000	42,600	42,600	90,500	90,500	128,000	128,000
Bureau of administration.....	6,000	6,000	18,900	18,900	13,000	13,000	15,500	15,500
Antitoxin and vaccines.....	3,334	2,079	10,434	8,441	13,539	15,877	25,150	19,816
Bureau of laboratories.....					20,000	20,000	25,000	25,000
Bureau of child hygiene.....					12,500	² 20,615	² 27,656	18,000
Bureau of vital statistics.....					14,500	10,000	12,500	12,500
Division of venereal diseases.....					¹ 26,185	¹ 18,491	¹ 16,622	¹ 12,939
Bureau of preventable diseases.....					11,000	11,000	15,000	15,000
Bureau of sanitary engineering.....					10,000	10,000	12,500	12,500
Division of mental hygiene.....							3,000	3,000

Bureaus and divisions	1924	1925	1926	1927	1928	1929	1930
Total budget.....	¹ \$189,806	^{1,2} \$101,002	\$200,000	\$200,000	\$235,000	\$235,000	\$324,309
State legislative budget.....	188,500	188,500	200,000	200,000	235,000	235,000	324,309
Bureau of administration.....	17,500	17,500	17,500	17,500	20,000	20,000	31,500
Antitoxin and vaccines.....	32,750	25,000	25,000	25,000	25,000	25,000	25,000
Bureau of laboratories.....	40,375	³ 35,300	37,500	37,500	45,000	45,000	73,667
Bureau of child hygiene.....	27,500	27,500	32,500	32,500	35,000	35,000	34,660
Bureau of vital statistics.....	15,000	20,000	20,000	20,000	20,000	20,000	20,723
Division of venereal diseases.....	¹ 11,306	¹ 10,327	12,500	12,500	16,250	16,250	17,067
Bureau of preventable diseases.....	20,000	20,000	17,500	17,500	20,000	20,000	27,507
Bureau of sanitary engineering.....	20,000	20,375	22,500	22,500	25,000	25,000	31,187
Division of mental hygiene.....	5,000	5,000	5,000	5,000	5,000	5,000	17,330
Bureau of public-health nursing.....	10,000	10,000	10,000	10,000	10,000	10,000	25,025
Bureau of public-health instruction.....					5,000	5,000	7,156
Division of occupational diseases.....					8,750	8,750	13,487

¹ U. S. Public Health Service funds included. (See Table 104.)² Sheppard-Towner funds included. (See Table 104.)³ Rockefeller Foundation funds included. (See Table 104.)TABLE 104.—*Total appropriations for State department of health, by years*

CONNECTICUT

Year	Total appropriation	Source of funds and amounts			
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Rockefeller Foundation
1916.....	\$24,000	\$24,000			
1917.....	24,000	24,000			
1918.....	42,600	42,600			
1919.....	54,721	42,600	\$12,121		
1920.....	103,685	90,500	13,185		
1921.....	95,991	90,500	5,491		
1922.....	142,737	128,000	6,622	\$8,115	
1923.....	140,594	128,000	2,939	9,656	
1924.....	189,806	188,500	1,306		
1925.....	191,002	188,500	327		\$2,175
1926.....	200,000	200,000			
1927.....	200,000	200,000			
1928.....	235,000	235,000			
1929.....	235,000	235,000			
1930.....	324,309	324,309			

DELAWARE

STATE BOARD OF HEALTH

Organization.—The State board of health was organized in 1879 and reorganized in 1893. It is composed of eight members appointed by the governor. Four of the members must be physicians, three must be women, and one must be a dentist.

Term of office and compensation.—The members serve for four years. The terms of two members expire each year. Members do not receive a salary, but their necessary traveling expenses are paid.

Meetings.—Regular monthly meetings are held, and special meetings may be called by the president of the board or by three members.

EXECUTIVE OFFICER

Legal qualifications.—The board elects a secretary in whom executive authority is vested. Legislative authority is vested in the board. The secretary is elected from outside the board and must be a trained sanitarian.

Term of office and compensation.—The executive secretary serves during the pleasure of the board but is not a member thereof. He receives a yearly salary of \$5,000 and may receive extra compensation as the State registrar of vital statistics. His necessary traveling expenses are paid.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial power. It has the authority to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, quarantine, and midwives. The enforcement of the medical practice law is not a function of the State department of health.

APPROPRIATIONS

Appropriations are made by bureaus every two years. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

Delaware - Organization of the State Department of Health in 1930

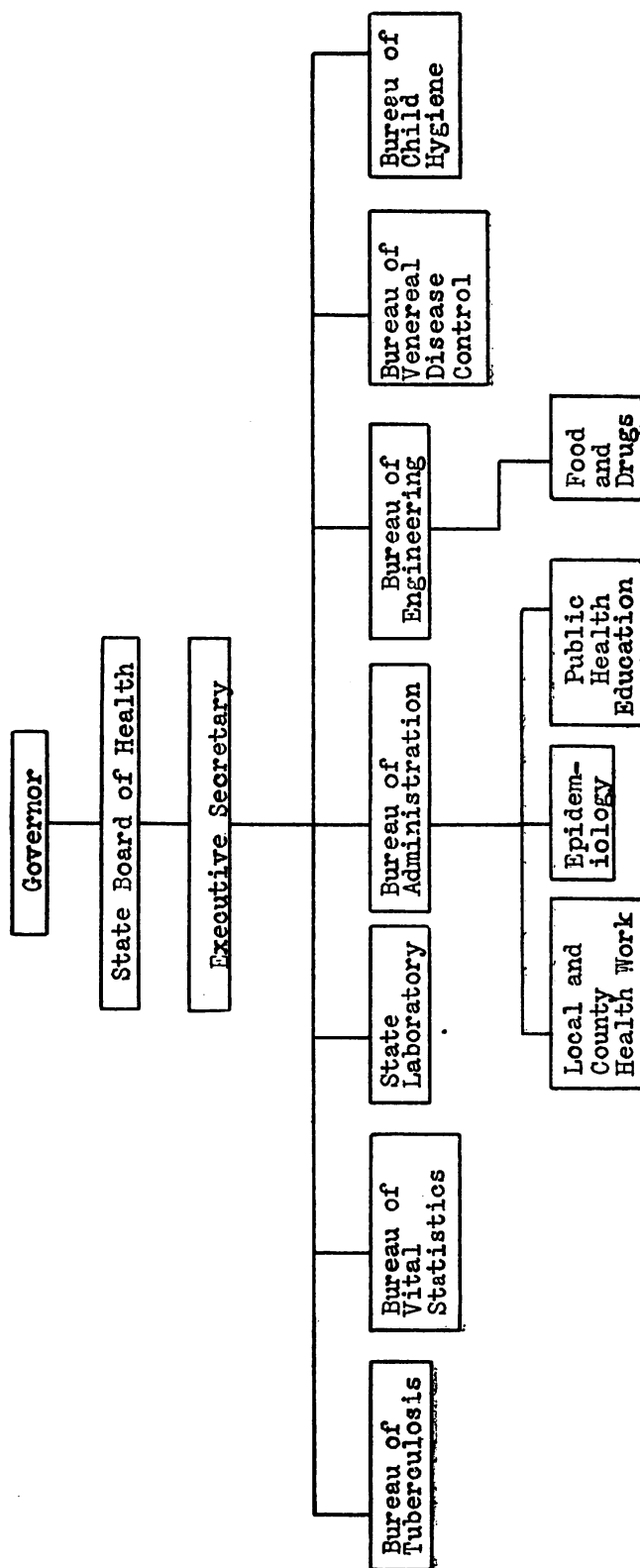


FIGURE 26

TABLE 105.—*Bureaus of the State department of health in 1930*¹

DELAWARE

Bureaus	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$12,000	2	\$5,000	\$1,600	\$6,600
Bureau of tuberculosis.....	20,000	1	3,800	(²)	3,800
Bureau of venereal disease control.....	3,000	2	(³)	600	600
Bureau of vital statistics.....	2,000	2	(⁴)	2,000	2,000
State laboratory.....	9,000	4	2,700	4,600	7,300
Bureau of engineering.....	5,000	3	3,180	3,000	6,180
Bureau of child hygiene.....	33,000	20	3,900	29,920	33,820
Tuberculosis sanatoria.....	104,000				

¹ Total appropriation, \$188,000; total appropriation exclusive of tuberculosis sanatoria funds, \$84,000; total State legislative appropriation exclusive of tuberculosis sanatoria funds, \$84,000.

² For administrative control only.

³ Part of staff with bureau of child hygiene.

⁴ Part-time official.

⁵ Executive secretary is the director.

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the bureau of administration in 1930 consisted of the executive secretary and a clerk.

Civil service.—The employees of the State department of health are not civil-service appointees. Changes in State administration do not affect the personnel of the department.

Disbursement of funds.—After approval by the State auditor, funds are disbursed by the State treasurer on order of the president and the executive secretary of the board of health.

Purchases.—Purchases are made by the executive secretary on the approval of the president of the board and the State auditor.

Local health work.—Each incorporated town or city has a local board of health, which must carry out the rules and regulations made by the State board of health. The board exercises general supervisory authority over the local health organizations. In communities where the local board of health fails or refuses to act, or where no local board of health has been established, the State board of health makes and enforces regulations at the expense of the local community.

County health work.—A county unit has been placed in each of the three counties composing the State. All the units are maintained wholly from State funds. The staff of each unit consists of a physician, two or three full-time nurses, and a clerk. Inspections in the county are carried out largely by a member of the staff of the health department.

TABLE 106.—Data on full-time counties operating throughout 1929 ¹

DELAWARE

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel		
								Health officers	Nurses	Clerks
Kent.....	1927	31, 752	\$8, 800	\$0. 28	\$26, 925, 000	0. 0003		1	2	1
New Castle....	1927	158, 454	9, 925	. 06	169, 052, 000	. 0001	Wilmington (105,461)....	1	2	1
Sussex.....	1927	45, 271	10, 425	. 23	31, 093, 000	. 0003		1	3	1
Total.....		235, 477	29, 150	. 12	227, 070, 000	. 0001		3	7	3

¹ These counties are reported as regular full-time counties by the State department of health. They are, however, financed entirely by the State.

Epidemiology.—There is no bureau of communicable diseases; the epidemiological work of the State is done by each department. Executive authority concerning the control of communicable diseases is vested in the executive secretary.

Reporting of diseases.—Cases of communicable diseases are reported daily to the State department of health by physicians and heads of families.

Quarantine.—Quarantine measures are under the control of the county health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory except in the city of Wilmington.

Emergency fund.—There is an emergency fund which may be used for public-health emergencies upon the approval of the governor.

Publicity.—Publicity is a function of the bureau of administration, but each director attends to the publicity for his type of work.

Press service.—Articles on public health subjects are sent to the press weekly.

Bulletins.—A bulletin is issued bimonthly and pamphlets are published from time to time.

Equipment.—The State department of health owns 3 stereopticons or still-picture apparatuses, 500 slides, 24 motion-picture films, 3 motion-picture projectors, and several portable exhibits.

Cooperation.—The State departments of health and of education cooperate in carrying on their programs.

BUREAU OF TUBERCULOSIS

State tuberculosis commission.—In 1909 the Delaware State Tuberculosis Commission, consisting of nine members, was established for the control of tuberculosis. In 1923 this commission was merged with the State department of health.

Personnel.—The bureau of tuberculosis is under the charge of a director. In 1930 part of its work was carried on by members of the

staff of the bureau of child hygiene. Public-health nurses who were engaged in general health work devoted a certain portion of their time to tuberculosis work.

Sanatoria.—There are two State tuberculosis sanatoria under the supervision of the State department of health. One of these is for white patients and the other for colored. Their total bed capacity is 85. In 1930 the tuberculosis sanatoria budget amounted to \$104,000, including \$35,000 for the construction of a nursing home and a special grant of \$15,000 for Brandywine sanatorium. This budget is included in the budget of the State department of health.

Clinics.—Eight tuberculosis clinics, with a total of 1,310 patients, are conducted each week by the State department of health.

BUREAU OF VENEREAL DISEASE CONTROL

Personnel.—The State health officer acts as the director of the bureau of venereal disease control. He was assisted in 1930 by a physician who gave part time to this work. All activities connected with the control of venereal disease are under the State department of health.

Clinics.—Three venereal disease clinics are conducted by the health department.

Treatments.—During 1929, 4,198 free treatments were administered. The State department of health also furnished free arsenicals to all physicians for indigent cases.

BUREAU OF VITAL STATISTICS

Personnel.—The executive secretary of the State board of health is the State registrar of vital statistics. In 1930 he was assisted by a clerk.

Registration districts.—The primary registration district in Delaware is the hundred, which is similar to a township in other States.

Local registrar.—The State board of health appoints a local registrar for each district. The local registrars receive a fee of 25 cents for each birth or death certificate issued. These fees are paid by the county.

Registration area.—Delaware was admitted to the registration area for deaths in 1919 and to the registration area for births in 1921.

Reporting of deaths.—In 1929, 99 per cent of the deaths occurring in the State were reported, 90 per cent of these by physicians and 10 per cent by coroners. Deaths must be reported to the local registrars before burial. The local registrar reports the deaths to the State registrar by the 10th day of every month.

Legal standards.—The model law is used with added requirements. The standard certificate and the international list of the causes of death are also used.

Reporting of births.—In 1929, 95 per cent of all births were reported. Of these, about 80 per cent were reported by physicians and about 20 per cent by midwives. Births must be reported to the local registrars within 10 days. The local registrar reports the births to the State registrar by the 10th day of every month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State board of health supplies the blanks for recording returns and also provides the necessary postage.

Unlawful death.—In case death is thought to be caused by unlawful means the matter is referred to the coroner.

Burial permits.—Burial permits are required and are issued by the local registrar.

Licensing.—Physicians are licensed by the medical council, midwives by the State board of health, and undertakers by the board of examiners in undertaking.

STATE LABORATORY

Personnel.—In 1930 the personnel of the State laboratory consisted of a director, who is a pathologist and bacteriologist, and of a secretary, a bacteriologist, and a janitor.

Branch and private laboratories.—There are no branch laboratories, and the State department of health has no supervision over the private laboratories.

Special laboratories.—The State department of health does not maintain any laboratories other than the central laboratory which is located at Dover.

Activities.—During 1929, 15,066 laboratory examinations were made. In addition to the diagnostic work, the chemical analysis of foods, beverages, and stomach contents were made. A summary of activities of the laboratory is given on pages 98 to 99.

Fees.—No charges are made for laboratory services.

Biological products.—Biological products are not manufactured by the central laboratory but are distributed by the laboratory, free of charge, to physicians throughout the State. The amounts distributed in 1929 were not recorded.

BUREAU OF ENGINEERING

Personnel.—In 1930 the personnel of the bureau of engineering consisted of a chief engineer, a secretary, and an inspector.

Public water supplies.—All plans for the construction of water-supply systems must be submitted to the State department of health for its approval before the work is begun.

Analysis and inspection.—Public water supplies are analyzed and water-purification plants are inspected once a month.

Bottled waters.—Legislation has been passed concerning the control of bottled waters.

Ice.—All artificial ice used in the State must be made from approved pure-water supplies.

Sewage disposal.—All plans for construction of sewerage systems must be submitted to the State department of health for approval.

Camps and swimming pools.—Regulations have been made by the State board of health concerning the sanitation of camps and swimming pools.

Roadside water supplies.—The inspection of roadside water supplies is a function of the State department of health.

Food and drugs.—The control of food and drugs is a function of the bureau of engineering.

Food handlers.—In certain industries the medical examination of food handlers is required by the State department of health.

Food inspection.—The inspection of food is required by law. The inspections are made by the sanitary inspector.

Shellfish.—The prevention of the pollution of shellfish is under the supervision of the State department of health. Persons operating oyster-shucking plants must hold permits from the department.

Slaughterhouses.—Slaughterhouses are inspected by the health department.

Cold-storage laws.—The enforcement of cold-storage laws is entrusted to the State department of health.

Milk laws.—The enforcement of the milk laws is also entrusted to the health department. The tuberculin testing of cattle is required by the State board of health. The testing is done by the State board of agriculture. The State laboratory makes the butterfat and sediment tests and the bacterial counts of milk samples. Dairies are licensed by the State board of health. The board requires that pasteurized milk contain less than 50,000 bacteria per cubic centimeter from the time of pasteurization until delivery to the consumer.

BUREAU OF CHILD HYGIENE

Personnel.—In 1930 the staff of the bureau of child hygiene consisted of a director, 3 clerks (in the county units), 13 nurses serving full time, and several serving part time.

Prenatal and maternal hygiene.—Seven permanent prenatal clinics are conducted by the State department of health, and prenatal examinations are held at the health centers. Facilities for the care of maternity cases are available in the general hospitals.

Midwifery.—Midwives are registered, licensed, and supervised by the State board of health. They are under the direct supervision of the supervisor of nurses, who holds a number of midwife conferences each year, where these practitioners are given general instruction

concerning their work. The nurses make frequent instructive visits to the midwives during the year.

Infant hygiene.—Sixteen infant and preschool clinics were maintained during 1929. Over 25,000 children attended these clinics.

Ophthalmia neonatorum.—A prophylactic against inflammation of the eyes of the new born is required, and cases of ophthalmia neonatorum must be reported to the local health officer within 6 hours.

Lying-in hospitals and orphanages.—Maternity cases are received by nine general hospitals. Maternity hospitals and orphanages are not licensed by the State board of health.

School hygiene.—The medical examination of school children is a function of the State department of health. An effort is made to have each child examined at least once a year.

Public-health nursing.—The public health nursing service is under the direct supervision of the executive officer.

Eligibility requirements.—State and local public-health nurses must be graduate nurses registered in the State, and must have had special training or experience in public-health work.

Nursing program.—The nursing program in Delaware is of a generalized type in which all nurses do the various kinds of works.

TABLE 107.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

DELAWARE

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$29, 500	\$29, 500	\$40, 000	\$40, 500	² \$78, 117	² \$77, 700
Total budget exclusive of tuberculosis sanatoria funds.....	20, 000	20, 000	30, 000	30, 000	31, 200	32, 200
State legislative budget exclusive of tuberculosis sanatoria funds.....	20, 000	20, 000	30, 000	30, 000	30, 000	30, 000
Bureau of administration.....	2, 500	2, 500	2, 500	2, 500	6, 000	6, 000
Bureau of tuberculosis.....	15, 000	15, 000	20, 000	20, 000	20, 000	20, 000
Bureau of vital statistics.....	2, 000	2, 000	2, 000	2, 000	2, 000	2, 000
State laboratory.....	3, 500	3, 500	3, 500	3, 500	10, 000	10, 000
Bureau of venereal disease control.....					² 4, 700	² 4, 893
Bureau of child hygiene.....					25, 000	25, 000

Bureau	1921	1922	1923 ¹	1924	1925
Total budget.....	² \$143, 702	² \$123, 478	² \$51, 915	² \$100, 557	² \$133, 504
Total budget exclusive of tuberculosis sanatoria funds.....	56, 202	35, 978	26, 715	58, 057	83, 504
State legislative budget exclusive of tuberculosis sanatoria funds.....	55, 000	30, 000	15, 000	45, 000	72, 000
Bureau of administration.....	6, 000	6, 000	3, 000	3, 000	8, 500
Bureau of tuberculosis.....	25, 110	29, 997	10, 000	20, 000	20, 000
Bureau of vital statistics.....	2, 000	2, 000	1, 000	2, 000	2, 000
State laboratory.....	10, 000	10, 000	5, 000	9, 000	9, 500
Bureau of venereal disease control.....	² 3, 702	² 2, 975	² 1, 461	² 2, 053	2, 000
Bureau of child hygiene.....	60, 000	³ 65, 503	³ 12, 500	³ 36, 504	³ 36, 504
Public health nursing.....	2, 000	2, 000	1, 200	(⁴)	(⁴)
Bureau of engineering.....					5, 000

¹ For 6 months only, due to change in termination of fiscal year from Dec. 31 to June 30.

² U. S. Public Health Service funds included. (See table 108.)

³ Sheppard-Towner funds included. (See Table 108.)

⁴ Included under bureau of child hygiene.

TABLE 107.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

DELAWARE—Continued

Bureau	1926	1927	1928	1929	1930
Total budget.....	³ \$130, 736	³ \$130, 562	³ \$136, 613	³ \$139, 744	⁴ \$188, 000
Total budget exclusive of tuberculosis sanatoria funds.....	78, 736	78, 562	84, 613	87, 744	84, 000
State legislative budget exclusive of tuberculosis sanatoria funds.....	69, 000	69, 000	69, 500	69, 500	84, 000
Bureau of administration.....	8, 500	8, 500	12, 000	12, 000	12, 000
Bureau of tuberculosis.....	20, 000	20, 000	20, 000	20, 000	20, 000
Bureau of vital statistics.....	2, 000	2, 000	2, 000	2, 000	2, 000
State laboratory.....	9, 000	9, 000	9, 000	9, 000	9, 000
Bureau of venereal disease control.....	2, 000	2, 000	3, 000	3, 000	3, 000
Bureau of child hygiene.....	³ 29, 736	³ 29, 562	³ 33, 613	³ 36, 744	33, 000
Public health nursing.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Bureau of engineering.....	5, 000	5, 000	5, 000	5, 000	5, 000

³ Sheppard-Towner funds included. (See Table 108.)⁴ Includes \$35,000 for nursing home and a special appropriation of \$15,000 for Brandywine sanatorium.⁵ Included under bureau of child hygiene.TABLE 108.—*Total appropriations for State department of health, by years*

DELAWARE

Year	Total appropriation	Appropriation exclusive of tuberculosis sanatoria funds	Source of funds and amounts			
			State legislature ¹	U. S. Public Health Service	U. S. Children's Bureau	Rockefeller Foundation
1915.....	\$29, 500	\$20, 000	\$20, 000	-----	-----	-----
1916.....	29, 500	20, 000	20, 000	-----	-----	-----
1917.....	40, 000	30, 000	30, 000	-----	-----	-----
1918.....	40, 500	30, 000	30, 000	-----	-----	-----
1919.....	79, 117	32, 200	30, 000	\$2, 200	-----	-----
1920.....	77, 700	32, 200	30, 000	2, 200	-----	-----
1921.....	143, 702	56, 202	55, 000	1, 202	-----	-----
1922.....	123, 478	35, 978	30, 000	475	\$5, 503	-----
1923 ²	51, 915	26, 715	15, 000	211	11, 504	-----
1924.....	100, 557	58, 057	45, 000	53	11, 504	\$1, 500
1925.....	133, 504	83, 504	72, 000	-----	11, 504	-----
1926.....	130, 736	77, 736	69, 000	-----	8, 736	-----
1927.....	130, 562	78, 562	69, 000	-----	9, 562	-----
1928.....	136, 613	84, 613	69, 500	-----	15, 113	-----
1929.....	139, 744	87, 744	69, 500	-----	18, 244	-----
1930.....	³ 188, 000	84, 000	84, 000	-----	-----	-----

¹ Exclusive of tuberculosis sanatoria funds.² For 6 months only, due to change in termination of fiscal year from Dec. 31 to June 30.³ Includes \$35,000 for construction of nursing home, and a special appropriation of \$15,000 for Brandywine sanatorium.

FLORIDA

STATE BOARD OF HEALTH

Organization.—In Florida the governor appoints the three members of the State board of health who must be citizens of the State.

Term of office and compensation.—The members serve for terms of four years, which terms may expire at the same time. They receive \$6 per diem while attending the meetings of the board and 10 cents per mile for traveling expenses.

Meetings.—An annual meeting is held and special meetings may be called by the president of the board whenever necessary.

Florida - Organization of the State Department of Health in 1930

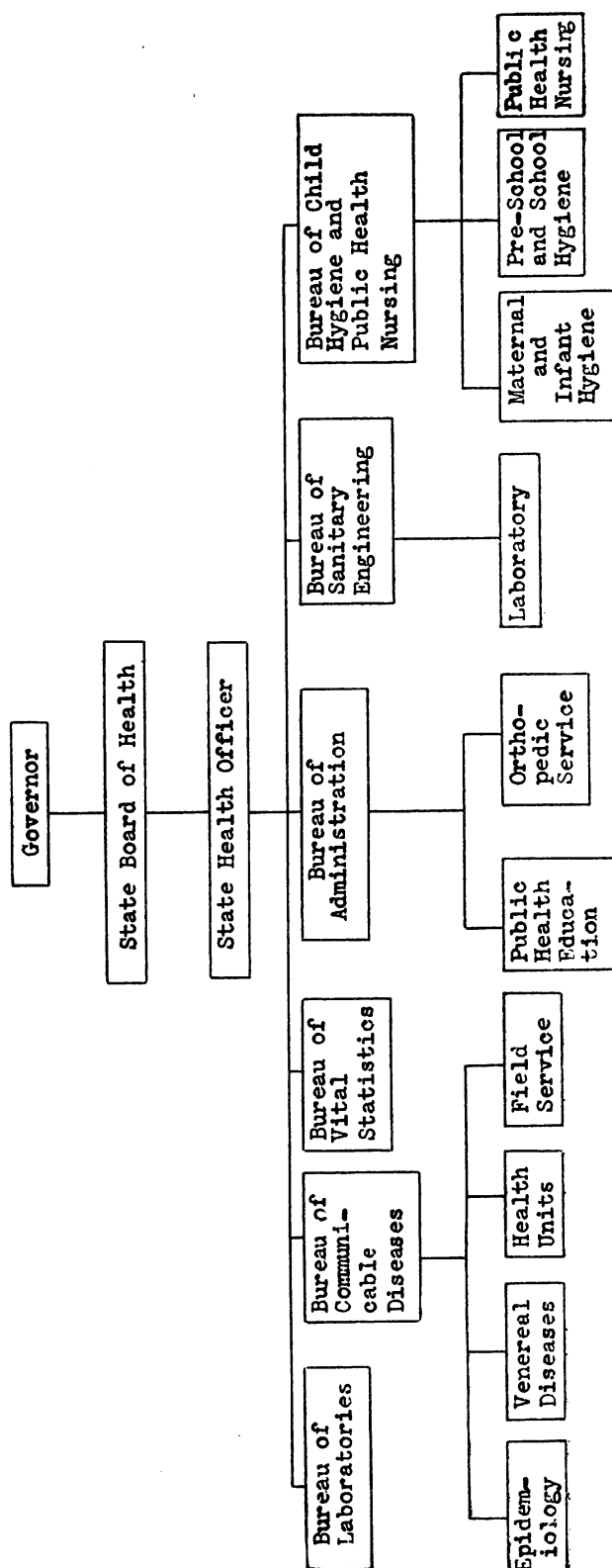


FIGURE 27

EXECUTIVE OFFICER

Legal qualifications.—The State health officer must be a physician, graduated from a recognized school, skilled in sanitation, and licensed to practice in the State. He is chosen by the governor from outside the State board of health and is not a member of the board.

Term of office and compensation.—The State health officer serves for four years and receives a yearly salary of \$5,000 and an allowance of \$1,000 for traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has quasi judicial, legislative, and executive powers in regard to sanitation in general, nuisances, communicable diseases, and quarantine. It has advisory power only regarding water pollution and mandatory power in incorporated towns and villages concerning sewage disposal. Milk supplies and food adulteration are functions of the State department of agriculture. Midwives must register with the State board of health. The enforcement of the medical practice act is not a function of the State department of health.

APPROPRIATIONS

The State legislature makes an annual appropriation apportioned by bureaus to the State department of health. The 1921 legislature cut the appropriation of the State department of health from one-half to one-fourth mill of taxation. In 1923 the one-half mill tax was restored. The legislature meets in April of odd years. The fiscal year of the health department ends June 30.

TABLE 109.—Bureaus of the State department of health in 1930 ¹

FLORIDA

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$31,945	13	\$5,000	\$16,320	\$21,320
Bureau of communicable diseases.....	44,080	8	3,600	21,780	25,380
Bureau of vital statistics.....	57,000	15	3,600	23,900	27,500
Bureau of laboratories.....	43,940	20	3,600	18,940	22,540
Bureau of sanitary engineering.....	33,800	11	3,600	18,700	22,300
Bureau of child hygiene and public-health nursing.....	47,200	13	3,600	21,600	25,200
Orthopedic service.....	10,000	1	2,400	-----	2,400

¹ Total appropriation, \$267,965; total appropriation exclusive of tuberculosis sanatoria funds, \$267,965; State legislative budget \$267,965.

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the bureau of administration in 1930 consisted of the State health officer, a secretary, a custodian, an assistant custodian, an auditor, a bookkeeper, a multigraph operator, a telephone operator, a movie-truck operator, and four helpers.

Civil service.—The employees of the State department of health are not civil-service appointees, but a change of State administration does not influence their positions.

Disbursement of funds.—Vouchers must be approved by the State health officer and the president of the board of health. Funds are disbursed by the State treasurer upon the approval of the State comptroller.

Purchases.—Supplies are purchased through requisitions signed by the State health officer.

Educational activities.—The State health officer has charge of the educational activities of the State department of health.

Bulletins.—A monthly bulletin is published and pamphlets are issued from time to time.

Press service.—The newspapers cooperate with the State department of health.

Equipment.—The State department of health owns a stereopticon, 200 slides, 17 motion-picture films, and a truck with a motion-picture outfit for use in the rural districts of the State.

Cooperation.—The State departments of health and of education cooperate in all health activities and in the control of communicable diseases in the public schools.

BUREAU OF COMMUNICABLE DISEASES

At the October meeting of the State board of health in 1921 the bureau of communicable diseases was formed.

Organization.—As now constituted, the bureau combines the functions previously performed by the bureau of venereal diseases, the division of field service, the division of communicable diseases previously under the bureau of administration, and the division of health units.

Personnel.—The staff of the bureau of communicable diseases in 1930 consisted of a director, a secretary, and six district health officers.

Epidemiology.—It is the function of the epidemiological division to investigate reports of communicable disease, to make diagnoses of all cases, and to take such steps as are necessary to prevent the spread of contagious and infectious diseases. The gathering of statistics and the compilation of all such data as pertains to communicable disease are functions of the bureau of vital statistics.

Reporting of diseases.—Cases of reportable diseases are reported daily by physicians to the State department of health or to the local health officers, in which case they are reported weekly to the State department of health.

Quarantine.—Quarantine measures are under the control of city or district health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—There is no special emergency fund.

Venereal-disease clinics.—Because of the great reduction in the appropriation in 1921 it was found necessary to reorganize the venereal-disease clinics on a basis whereby they could be conducted without cost to the State department of health. Some are maintained by cities and counties, some by industrial plants, and some through the generosity of clinicians, who receive no salary.

Treatments.—No treatments for venereal diseases were administered by the health department during 1929.

Health units.—Considerable work was done during the first part of 1922 toward the establishment of health units as planned by the State department of health. At the close of 1930 there was a district of three counties operating on a full-time basis.

Field service.—There are eight full-time districts carrying on health work under the supervision of the State department of health. The primary duty of the health officers is epidemiological. In addition these officers conduct examinations of school children, sanitary surveys, and county surveys; they attend and assist in tuberculosis clinics, child-welfare clinics, and other clinics that are held for diagnosis or treatment, and they assist in carrying out the educational program of the bureau.

Tuberculosis control.—Through the bureau of communicable diseases the State department of health carries on an educational program for the control of tuberculosis.

Sanitoria.—There are no State tuberculosis sanitoria.

Tuberculosis clinics.—No tuberculosis clinics were conducted by the State department of health in 1929.

BUREAU OF VITAL STATISTICS

Personnel.—According to law the State health officer is the State registrar. His authority is delegated to a director of the bureau, who in 1930 was aided by a chief assistant, a secretary, nine clerks, an inspector, and two machine operators.

Registration districts.—Cities, incorporated towns, and voting precincts, including towns inside each county, are the primary registration districts for births and deaths.

Local registrars.—The local registrars are appointed by the State registrar and receive a fee of 25 cents from the State board of health for each certificate issued.

Registration area.—Florida was admitted to the registration area for deaths in 1919 and to the registration area for births in 1924.

Reporting of deaths.—It is estimated that in 1929 over 90 per cent of all deaths occurring in the State were reported, all by undertakers

or persons acting as undertakers. Deaths must be reported to the local registrar before burial, and the original certificate is forwarded by the 10th of the following month to the State registrar.

Legal standards.—The model law was adopted January 1, 1917. The standard certificate and international list of the causes of death are also used in this State.

Reporting of births.—It is estimated that in 1929 over 90 per cent of the births occurring in the State were reported; 66 per cent of the certificates received were from physicians, 33.1 per cent from midwives, and 0.9 per cent from others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the following month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns, and the local registrars provide their own postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the death certificate must be signed by the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians must be licensed by the State board of medical examiners, midwives by the State board of health, and embalmers by the State board of embalmers.

BUREAU OF LABORATORIES

Personnel.—In 1930 the personnel of the main laboratory at Jacksonville consisted of a director, three bacteriologists, a serologist, a technician, two clerks, and a stenographer.

Branch laboratories.—There are four branch laboratories in the State, located at Tampa, Pensacola, Tallahassee, and Miami. They are financed through the one budget for the bureau of laboratories. The personnel is as follows: Tampa, two bacteriologists, a stenographer and interpreter, and a helper; Pensacola, a bacteriologist, a laboratory assistant, and a janitor; Tallahassee, a bacteriologist and a helper; Miami, a bacteriologist and a technician.

Private laboratories.—The State department of health has no supervision over the private laboratories of the State.

Special laboratories.—The bureau of sanitary engineering maintains a laboratory for chemical and bacteriological water analyses.

Activities.—During 1929, 156,419 examinations were made by the laboratories. The chief activities included examinations of diphtheria cultures, Kahn tests; and examinations of feces for intestinal parasites. A summary of activities is given on pages 98 to 99.

Fees.—No charges are made for any laboratory services.

Biological products.—No biological products are manufactured by the laboratories, but vaccines, sera, antitoxins, and silver-nitrate

ampoules are distributed free through the laboratories, with the exception of antirabic vaccine. An analysis of the amount of biologicals distributed in 1929 is given on page 102.

BUREAU OF SANITARY ENGINEERING

The bureau of sanitary engineering was created on July 21, 1916, for the purpose of rendering assistance to cities and towns in solving their sanitary engineering problems.

Personnel.—In 1930 the staff of the bureau of sanitary engineering consisted of a director, two assistants, seven district sanitary officers, and a clerk.

Public water supplies and sewage-disposal systems.—The superintendents of all water-supply and sewage-treatment plants must submit daily records of treatment and analyses to the State department of health.

Analysis and inspection.—Public water supplies are analyzed quarterly, and water-purification plants are inspected semiannually.

Bottled waters.—The inspection and analysis of bottled water from springs is required, and a permit to manufacture or sell such waters is necessary.

Ice industry.—No legislation has been passed governing the ice industry.

Tourist and summer camps.—The inspection and certification of tourist and summer camps is one of the most important activities of the bureau.

Swimming pools.—A permit is required for the construction and maintenance of swimming pools.

Roadside water supplies.—The problem of roadside water supplies is not presented in this State.

Laboratory.—The bureau of sanitary engineering maintains a separate laboratory for chemical and bacteriological analyses of water samples.

Shellfish sanitation.—The bureau of sanitary engineering cooperates with the State department of agriculture in controlling shellfish sanitation.

BUREAU OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

Organization.—In July, 1922, the division of maternal and infant hygiene was organized to work in cooperation with the Children's Bureau of the United States Department of Labor for the promotion of the welfare and hygiene of maternity and infancy as outlined in the Sheppard-Towner Act. The bureau consists of the three divisions of maternal and infant hygiene, examinations and inspections of preschool and school children, and public-health nursing.

Personnel.—In 1930 the personnel of the bureau of child hygiene and public-health nursing consisted of a director, two supervisors, eight staff nurses, a secretary, and a clerk.

Maternal and prenatal hygiene.—Prenatal conferences are held from time to time.

Midwifery.—Midwives must have a permit to practice. They receive supervision and instruction through the bureau of child hygiene.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported, and prophylactic treatments are required.

Lying-in hospitals and orphanages.—There is one lying-in hospital, located at Jacksonville, which is licensed by the city board of health. Orphanages are licensed by the State board of public welfare.

Preschool hygiene.—The medical examination of preschool children is required by law. During 1929, 324 preschool conferences were held and 5,616 children examined. Instruction is given through home visits and conferences with the parents, and literature is distributed.

School hygiene.—The annual medical examination of school children is required, but no funds have been appropriated by the State legislature for this work. It is carried on by a few city health departments.

Public-health nursing.—The activities of the public-health nurses are supervised by the director of this bureau.

Eligibility requirements.—A State public-health nurse must be a graduate nurse and must have had at least six months' training in public-health work.

Orthopedic service.—The State legislature makes an appropriation of \$10,000 for orthopedic service each year. This service is under the charge of a surgeon who gives part time to the work.

TABLE 110.—Total budget, State legislative budget for health work, and budgets by bureaus, by years ¹

FLORIDA

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$128,640	\$144,628	\$125,507	\$125,211	\$167,468	\$171,495
State legislative budget.....	128,640	144,628	125,507	125,211	167,468	171,495

Bureau	1921	1922	1923	1924	1925
Total budget.....	\$211,038	² \$134,022	² \$149,755	² \$175,152	² \$296,430
State legislative budget.....	206,037	123,338	132,307	158,544	279,898
Bureau of administration.....	68,385	16,556	20,704	26,530	33,722
Bureau of communicable diseases.....	32,250	³ 22,925	³ 14,377	³ 20,837	38,590
Bureau of vital statistics.....	24,522	23,385	24,893	23,903	33,673
Bureau of laboratories.....	47,580	37,344	39,466	41,526	72,078
Bureau of sanitary engineering.....	19,558	14,380	19,692	26,682	49,414
Bureau of child hygiene and public-health nursing.....	18,743	² 19,432	² 30,623	² 35,674	² 58,568
Orthopedic service ⁴					10,385

¹ Records do not give detailed information prior to 1921.

² U. S. Children's Bureau funds included. (See Table 111.)

³ U. S. Public Health Service funds included. (See Table 111.)

⁴ Funds formerly included under child hygiene.

TABLE 110. *Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

FLORIDA—Continued

Bureau	1926	1927	1928	1929	1930
Total budget.....	² \$279,897	² \$296,997	² \$285,901	² \$285,841	\$267,965
State legislative budget.....	263,365	280,465	269,369	269,309	267,965
Bureau of administration.....	33,643	33,293	36,574	36,514	31,945
Bureau of communicable diseases.....	47,188	53,130	42,558	42,558	33,800
Bureau of vital statistics.....	33,969	36,669	43,307	43,307	43,940
Bureau of laboratories.....	46,853	47,020	50,940	47,940	57,000
Bureau of sanitary engineering.....	49,675	55,292	46,084	46,084	44,080
Bureau of child hygiene and public-health nursing.....	² 58,568	² 61,593	² 54,438	² 54,438	47,200
Orthopedic service ⁴	10,000	10,000	12,000	15,000	10,000

² U. S. Children's Bureau funds included. (See Table III.)⁴ Funds formerly included under child hygiene.TABLE 111.—*Total appropriations for State department of health, by years*

FLORIDA

Year	Total appropriation	Source of funds and amounts			Year	Total appropriation	Source of funds and amounts		
		State legislature	United States				State legislature	United States	
			Public Health Service	Children's Bureau				Public Health Service	Children's Bureau
1915.....	\$128,640	\$128,640	-----	-----	1923.....	\$149,755	\$132,307	\$916	\$16,532
1916.....	144,628	144,628	-----	-----	1924.....	175,152	158,544	229	16,532
1917.....	125,507	125,507	-----	-----	1925.....	296,430	279,898	-----	16,532
1918.....	125,211	125,211	-----	-----	1926.....	279,897	263,365	-----	16,532
1919.....	167,468	167,468	-----	-----	1927.....	296,997	280,465	-----	16,532
1920.....	171,495	171,495	-----	-----	1928.....	285,901	269,369	-----	16,532
1921.....	211,038	206,037	-----	\$5,000	1929.....	285,841	269,309	-----	16,532
1922.....	134,022	123,338	\$2,061	8,621	1930.....	267,965	267,965	-----	-----

GEORGIA

STATE BOARD OF HEALTH *

Organization.—The State board of health consists of 15 members, 12 of whom are appointed by the governor. Three are ex officio members; namely, the State superintendent of schools, the State veterinarian, and the commissioner of health, who is chosen by and from the board. A majority of the members of the State board of health must be physicians and two members must be dentists.

Term of office and compensation.—The appointed members serve for a period of six years, the terms of two members expiring each year. The members of the State board of health receive \$5 per diem and traveling expenses while in session.

Meetings.—Two meetings are held each year, and special meetings may be held on call of the president of the board.

* See footnote 6, Table 1, p. 11.

Georgia - Organization of the State Department of Health in 1930

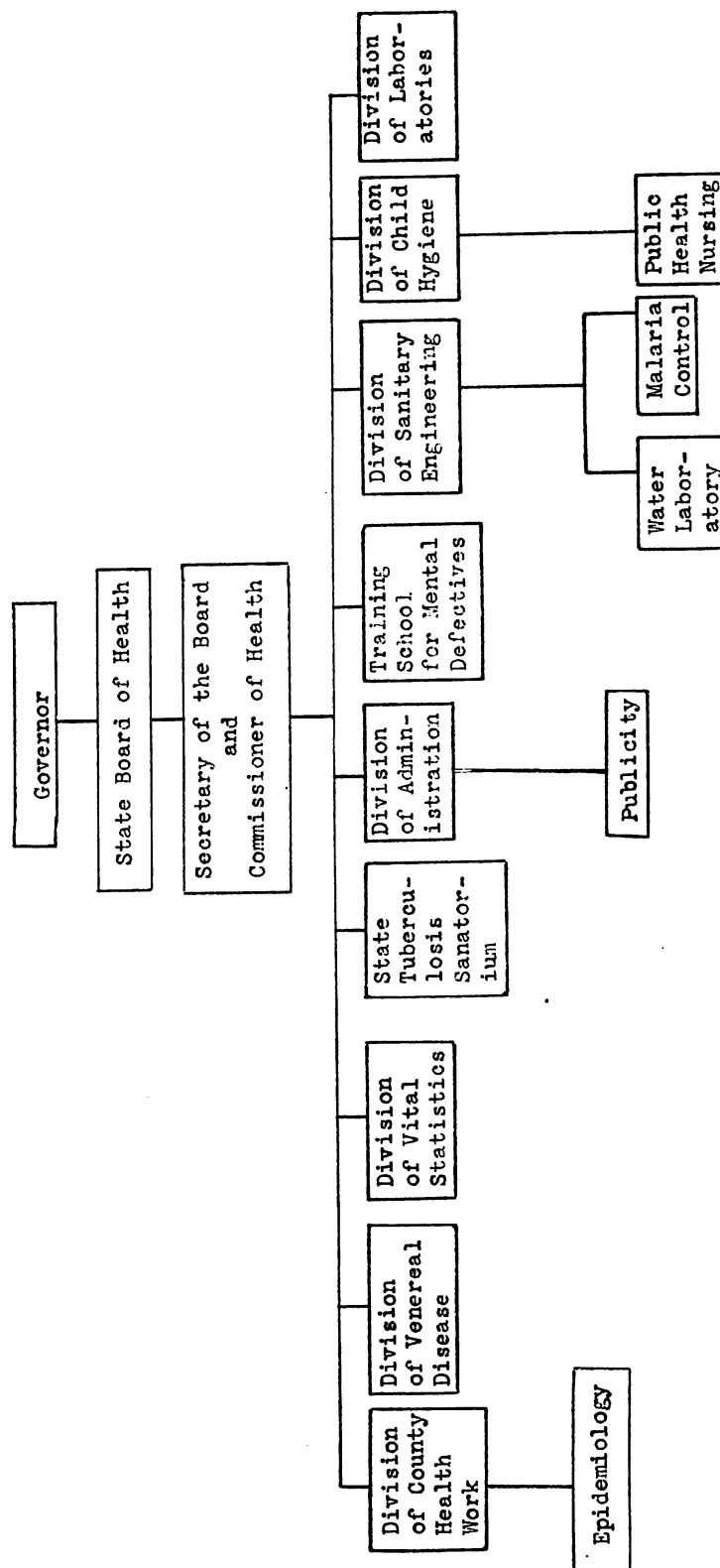


FIGURE 28

EXECUTIVE OFFICER ^b

Legal qualifications.—The commissioner of health must be a physician licensed in Georgia. He is chosen by the State board of health from its members and is the secretary of the board.

Term of office and compensation.—The executive officer serves for six years and receives a salary of \$7,500. Necessary traveling expenses are allowed.

POWERS OF THE STATE HEALTH DEPARTMENT

Judicial, legislative, and executive powers.—The powers of the board are mainly advisory. It receives recommendations and reports and authorizes procedures. The board has a slight amount of judicial power also. It has the authority to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, communicable diseases, quarantine, and midwifery. Milk supplies and control of food adulteration are under the department of agriculture. The enforcement of the medical practice law is not a function of the State board of health. The commissioner of health is the executive officer of the board and enforces laws and rules promulgated by the board.

APPROPRIATIONS

An annual appropriation is made by the State legislature for the State department of health. The appropriation is apportioned by the commissioner to the various divisions. The legislature meets in June of odd years. The fiscal year of the health department ends December 31.

TABLE 112.—*Divisions of the State department of health in 1930* ¹

GEORGIA

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$22,500	5	\$7,500	\$8,480	\$15,980
Biological products.....	10,000				
Printing department.....	6,100	1		1,200	1,200
Division of county health work, central division.....	9,500	2	5,000	1,500	6,500
County projects.....	37,725	14		30,050	30,050
Division of venereal disease.....	10,000	6	² 2,400	7,530	9,930
Venereal disease project, Glynn County.....	10,925	3	3,000	2,100	5,100
Division of vital statistics.....	28,000	12	5,000	14,460	19,460
Division of laboratories.....	29,000	16	5,000	19,120	24,120
Division of sanitary engineering.....	14,200	4	5,000	6,240	11,240
Malaria control.....	11,000	2	4,000	1,200	5,200
Division of child hygiene.....	36,000	12	² 3,600	22,800	26,400
Training School for mental defectives.....	110,420	31	5,000	16,840	21,840
State tuberculosis sanatorium.....	330,914	105	5,500	90,500	96,000

¹ Total appropriation, \$669,467; total appropriation exclusive of institutional funds, \$228,133; total State legislative appropriation, \$554,770; total State legislative appropriation exclusive of institutional funds, \$165,000.

² 1 director for divisions of venereal disease and child hygiene with total salary of \$6,000.

^b See footnote 8, Table 4, p. 31.

DIVISION OF ADMINISTRATION

Personnel.—The staff of the division of administration in 1930 consisted of the commissioner of health, deputy commissioner of health, an accountant, two secretaries, and a porter.

Civil service.—The employees of the State department of health are not under civil service. A change of State administration does not affect the personnel.

Disbursement of funds.—Funds are disbursed by the State department of health, the accountant on the staff of this division being the disbursing agent.

Purchases.—Supplies are purchased through the accounting department of the health department.

Publicity.—The commissioner of health is in charge of the publicity of the State department of health.

Press service.—The department uses the Page Press Service of the State and the Western Newspaper Union.

Bulletins.—A regular bulletin is published monthly and pamphlets are issued from time to time.

Equipment.—The State department of health owns several stereopticons, a number of slides, a portable exhibit, a motion-picture camera, and projecting machine.

Cooperation.—The State departments of health and education cooperate in carrying on their respective programs.

DIVISION OF COUNTY HEALTH WORK

Personnel.—The personnel of the central division of county health work in 1930 consisted of a director and a secretary.

Ellis health law.—Under the Ellis health law, enacted in 1914, a county board of health composed of three members; namely, the county superintendent of schools, the chairman of the board of roads and revenues, and one reputable physician elected by the grand jury of the county, was authorized for each county.

Sanitary districts.—According to the Ellis health law the State is divided into sanitary districts, each county constituting a sanitary district, except that two or more counties, each having a population of less than 37,000 inhabitants, may be combined into one district. A district commissioner of health is appointed in each sanitary district for a 4-year period. The commissioner of health examines all applicants for the position of district health commissioner and may suspend any commissioner for incompetency.

Full-time counties.—At the close of 1930 there were 31 full-time county health organizations in operation.

TABLE 113.—Data on full-time counties operating throughout 1929

GEORGIA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Glynn.....	1915	19,397	\$22,919	\$1.18	\$12,852,000	\$0.0018	Brunswick (14,053).....	1	2	3	1	3
Floyd.....	1915	47,765	9,572	.20	21,535,000	.0004	Rome (20,830).....	1	1	1	1	1
Thomas.....	1916	32,648	24,725	.76	13,752,000	.0018	Thomasville (11,373).....	1	2	1	1	2
Sumter.....	1917	27,075	5,000	.18	10,735,000	.0005	La Grange (19,819).....	1	1	1	1	1
Troup.....	1918	36,682	8,550	.23	13,887,000	.0006	Valdosta (13,208).....	1	1	1	1	1
Lowndes.....	1919	29,644	10,000	.34	14,053,000	.0007		1	1	1	1	1
Worth.....	1919	21,370	6,900	.32	5,672,000	.0012		1	1	1	1	1
Baldwin.....	1919	22,468	4,000	.18	4,560,000	.0009		1	1	1	1	1
Laurens.....	1919	33,377	4,600	.14	12,424,000	.0004		1	1	1	1	1
Bartow.....	1919	25,274	4,100	.16	8,554,000	.0005		1	1	1	1	1
Walker.....	1919	25,917	6,120	.24	8,426,000	.0007		1	1	1	1	1
Cobb.....	1920	35,027	6,000	.17	12,094,000	.0005		1	1	1	1	1
Dougherty.....	1920	22,065	24,000	1.09	14,586,000	.0016	Albany (14,192).....	1	2	2	1	2
Decatur.....	1920	24,441	7,000	.29	8,959,000	.0008		1	1	1	1	1
Clarke.....	1920	25,661	22,080	.86	21,579,000	.0010	Athens (18,044).....	1	1	3	1	3
Brooks.....	1920	21,658	5,000	.23	8,256,000	.0006		1	1	1	1	1
Hall.....	1921	29,873	4,700	.16	11,838,000	.0004		1	1	1	1	1
Mitchell.....	1922	23,815	4,200	.18	6,945,000	.0006		1	1	1	1	1
Richmond.....	1922	72,053	54,138	.75	45,613,000	.0012	Augusta (59,442).....	1	4	13	3	1
Bibb.....	1924	76,488	50,000	.65	52,696,000	.0009	Macon (53,778).....	1	3	9	1	11
De Kalb.....	1924	66,204	12,120	.18	23,081,000	.0005	Decatur (12,562).....	1	1	2	1	1
Ware.....	1925	26,732	9,720	.36	11,284,000	.0009	Waycross (15,764).....	1	3	1	1	1
Grady.....	1926	19,307	3,400	.18	4,879,000	.0007		1	1	1	1	1
Spalding.....	1926	23,312	4,800	.21	8,498,000	.0006	Griffin (10,112).....	1	1	1	1	1
Chatham.....	1927	119,936	104,000	.87	73,390,000	.0014	Savannah (87,266).....	2	14	40	7	4
Colquitt.....	1927	38,670	6,060	.16	8,694,000	.0007		1	1	1	1	1
Coffee.....	1927	20,735	4,200	.20	5,038,000	.0008		1	1	1	1	1
Crisp.....	1928	21,347	7,500	.35	6,649,000	.0011		1	1	1	1	1
Washington.....	1928	28,147	6,900	.25	7,243,000	.0010		1	1	1	1	1
Wayne.....	1928	15,664	6,900	.44	5,852,000	.0012		1	1	1	1	1
Emanuel.....	1928	29,596	6,900	.23	6,603,000	.0010		1	1	1	1	1
Total.....		1,023,083	456,104	.45	470,227,000	.0010		32	33	83	25	28

Epidemiology.—The epidemiological work of the State department of health is handled by the county health departments.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by county health officers. Physicians make reports in counties not having health officers.

Quarantine.—Quarantine measures are under the control of city and county health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory by State law.

Emergency fund.—There is no emergency fund for use of the State department of health in case of a severe epidemic.

DIVISION OF VENEREAL DISEASE

Personnel.—In 1930 the personnel of the division of venereal disease consisted of a director, who is also the director of the bureau of child hygiene, and a stenographer.

Educational activities.—The program conducted by the State department of health consists largely of educational measures. Very few communities take advantage of the law of 1918 giving them the right to examine and detain individuals suspected of being infected with venereal disease. The law enforcement phase of venereal-disease control has not been stressed by this division.

Clinics.—No venereal disease clinics were maintained by the State department of health in 1929 and no treatments were administered.

Venereal-disease project.—The organization of a survey and clinic for the treatment of syphilis was inaugurated in 1930 among the negroes of Glynn County in cooperation with the United States Public Health Service, the Rosenwald Fund, and the county board of health. This clinic is projected for a period of several years. Every negro from infancy to old age has been examined, with two blood specimens made of each. All positive cases are being treated free of expense to the individual. The work is under the supervision of the commissioner of health.

A state-wide school in obstetrics (postgraduate) was conducted in cooperation with the Children's Bureau of the Department of Labor, and the district medical societies of the State, and the State board of health. In these schools the treatment of venereal diseases was specially stressed. The schools have been conducted for five days in 18 different locations.

Owing to the high rate of venereal disease among colored people, a four-day school was held for the negro doctors of the State in which venereal diseases were stressed. The faculty of Emory University cooperated. One hundred and fifty-four negro doctors were invited and seventy-three answered to the roll call.

Personnel.—The personnel conducting the venereal-disease project in 1930 consisted of a physician, a nurse, and a clerk.

DIVISION OF VITAL STATISTICS

The division of vital statistics was established in 1919.

Personnel.—The State registrar was assisted in 1930 by a director, nine clerks, and one helper.

Registration districts.—Each militia district and each incorporated town or city constitutes a registration district.

Local registrars.—The local registrars are appointed by the State board of health and are paid a fee of 50 cents per record by the county treasurers.

Registration area.—The standard required by the United States Bureau of the Census for admission to the registration area for deaths was reached in 1921 and Georgia was admitted to the area in 1922. However, the State was dropped from the area in 1925, since only 75

per cent of the deaths were reported and because of a court decision concerning the payment of registrars. These officials are elected every four years, resulting in a change of more than 50 per cent following each election. The amendment passed in 1919 is mandatory upon the State department of health to remove any inefficient registrar and to appoint a registrar who will serve until such time as the people elect a justice of the peace to comply with the requirements of the vital statistics laws. In 1928 the State was admitted to both birth and death registration areas.

Reporting of deaths.—In 1929 about 90 per cent of the deaths were reported, of which about 88 per cent were reported by undertakers. Deaths must be reported to the local registrar before burial and to the State registrar on the 10th day of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—About 90 per cent of the births occurring in 1929 were reported. Approximately two-thirds of the births are reported by physicians and one-third by midwives. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th day of each month.

Stillbirths.—Stillbirths are reported as births and deaths.

Blanks and postage.—The State division of vital statistics supplies the blanks for recording returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the county coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—No information was received concerning the licensing of physicians, undertakers, or midwives.

DIVISION OF LABORATORIES

Personnel.—The personnel of the division of laboratories in 1930 consisted of a director, two bacteriologists, a serologist, a water analyst, six technicians, a stenographer, three clerks, and five helpers.

Branch and private laboratories.—No branch laboratories have been established as yet and the State department of health has no supervision over the private laboratories in the State.

Special laboratory.—A laboratory for water analyses is maintained by the division of sanitary engineering.

Activities.—During 1929, 70,986 examinations were made by the central laboratory. The chief activities are Wassermann tests, feces examinations for intestinal parasites, malaria blood smears, and sputum examinations for tuberculosis. A summary of the activities of the laboratory is given on pages 98–99.

Fees.—No charge is made for laboratory service.

Biological products.—In addition to the routine examinations, silver nitrate ampules and antirabic and typhoid vaccines are manufactured by this laboratory and distributed free of charge. A special appropriation is made each year for the purchase of other biological products which are distributed by this division at cost with the exception of diphtheria antitoxin, which is distributed free to indigents.

DIVISION OF SANITARY ENGINEERING

The division of sanitary engineering was established on April 1, 1920.

Personnel.—The staff of the division of sanitary engineering in 1930 consisted of a sanitary engineer, a secretary, a chemist, and a laboratory assistant. There is also an assistant sanitary engineer and a stenographer in charge of the malaria-control work.

Activities.—The work of this division consists of the investigation of waterworks and sewage-disposal systems and advice concerning them, malaria control, and the elimination of miscellaneous nuisances.

Public water supplies and sewage-disposal systems.—All plans for the construction, extension, or alteration of public water supplies and sewage-disposal systems must be submitted to the State department of health for approval.

Analysis and inspection.—Water supplies are analyzed once a month and oftener if necessary. Water-purification plants are inspected annually.

Bottled waters.—No legislation has been passed relating to spring waters.

Water laboratory.—A water laboratory is maintained by this division.

Ice industry.—No regulations have been passed governing the ice industry.

Camps, swimming pools, and roadside water supplies.—No regulations have been passed concerning the sanitation of camps, swimming pools, or roadside water supplies.

Malaria control.—During 1924 the division gave its attention to both rural and urban malaria. Conditions exist in Georgia peculiar to the southeastern section of the United States commonly known as a lime-sink section. Lime sinks have been found to be preferential breeding places for mosquitoes. These lime sinks are nothing more than various types of ponds, some of which can be drained and some filled, but a large number can probably never be eliminated. Certain defects in the State drainage laws present obstacles to the promotion of drainage work.

Impounded waters.—According to rules and regulations governing the impounding of waters, passed by the Georgia State Board of

Health in 1924 and 1925, an application must be made to the State board of health prior to the initiation of any construction activities. After the regulations have been complied with to the satisfaction of the division of sanitary engineering, a permanent permit for the maintenance of the project is issued, and close supervision is exercised over the work.

DIVISION OF CHILD HYGIENE

Personnel.—The personnel of the division of child hygiene in 1930 consisted of a director, who is also the director of the division of venereal diseases, a stenographer, and a file clerk.

Health mobile.—The division has a "health mobile" unit to travel through the rural sections for the examination of mothers and children. It is a well-equipped doctor's office and is in charge of a physician, nurse, and director of visual education. Lectures are given, movies shown, and literature distributed. The nurses visit the homes, taking with them the physical defect cards, and urge the parents to have the defects of their children corrected. They give such advice as they think proper about the sanitation of the homes and about proper food and its preparation. This has resulted in great improvement in many undernourished children. During 1929, 105 prenatal and children clinics were held by this unit, and a total of 480 preschool children and 5,096 school children were examined.

Midwifery.—During 1924 regulations were passed upon by the medical association councilors and approved by the State board of health giving Georgia control over midwives.

Ophthalmia neonatorum.—Physicians and midwives are required by law to use silver nitrate in the eyes of the new born.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are supervised by the State welfare department.

School hygiene.—In counties having full-time health officers every child is required to have a complete physical examination at least once each year. These examinations are carried on by health officers or by special physicians selected for the work. About 60 per cent of the school children of the State were examined.

Public-health nursing.—Public-health nursing activities are supervised by the director of the division of child hygiene.

Eligibility requirements.—A State or local public-health nurse must be a graduate registered nurse with public-health training.

STATE TUBERCULOSIS SANATORIUM

The State tuberculosis sanatorium was formerly under the direction of a special board. In 1919 it was placed under the supervision of the State department of health.

Personnel.—The staff of the State tuberculosis sanatorium in 1930 consisted of a superintendent, 4 assistants, a superintendent of nurses, 37 nurses, 2 stenographers, 2 bookkeepers, a dietitian, a technician, 3 cooks, 9 laundresses, an engineer, 3 firemen, a farm superintendent, 4 laborers, 4 dairymen, and 40 other helpers.

Sanatorium.—The capacity of this sanatorium is 275 beds, and the patients pay according to their means. A special appropriation is made by the State legislature to the State department of health for the maintenance of the sanatorium. In 1930 this appropriation amounted to \$280,000.

Dispensaries.—No dispensaries are conducted by the State department of health.

GEORGIA TRAINING SCHOOL FOR MENTAL DEFECTIVES

The training school for mental defectives, which is under the supervision of the State department of health, was established in 1922 with a registration of 129.

Personnel.—The staff employed at the training school in 1930 consisted of a superintendent, an assistant, a supervisor, four stewards, six matrons, a stenographer, four teachers, two cooks, and nine other helpers.

Special appropriation.—A special appropriation is made by the State legislature to the State department of health for the training school. In 1930 this appropriation amounted to \$109,770.

TABLE 114.—Total budget, State legislative budget for health work, and budgets by divisions, by years

GEORGIA

Divisions	1915	1916	1917	1918	1919	1920
Total budget.....	\$30,500	\$30,500	\$30,500	\$30,500	^{1 2} \$167,081	^{1 2} \$316,897
Total budget exclusive of institutional funds.....	30,500	30,500	30,500	30,500	100,704	114,562
Total State legislative budget.....	30,500	30,500	30,500	30,500	107,000	250,340
Total State legislative budget exclusive of institutional funds.....	30,500	30,500	30,500	30,500	60,000	90,590
Purchase of biological products.....				2,724	6,978	6,085
Division of county health work (central division).....					² 2,641	² 6,072
Malaria control.....					1,083	6,573
Division of venereal diseases.....					¹ 28,369	¹ 30,000
Tuberculosis sanatorium.....					66,377	77,335
Division of administration ³						10,492
Division of vital statistics ³						13,140
Public-health laboratory ³						19,968
Division of sanitary engineering ³						5,945
Division of child hygiene ³						3,207
Training school for mental defectives.....						125,000
County projects.....						

¹ Social hygiene board funds included. (See Table 115.)

² Rockefeller Foundation funds included. (See Table 115.)

³ Accounts not kept previous to 1920.

TABLE 114.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

GEORGIA—Continued

Divisions	1921	1922	1923	1924	1925
Total budget.....	^{1 2} \$187, 436	^{2 3 4} \$207, 136	^{2 3 4} \$198, 706	^{2 3 4} \$465, 635	^{2 4} \$485, 540
Total budget exclusive of institutional funds.....	111, 389	109, 153	110, 865	118, 703	142, 563
Total State legislative budget.....	151, 590	172, 931	166, 431	418, 343	421, 431
Total State legislative budget exclusive of institutional funds.....	90, 590	91, 431	91, 431	91, 431	96, 431
Purchase of biological products.....	9, 844	9, 449	8, 196	7, 881	8, 360
Division of county health work (central division).....	² 8, 676	² 5, 581	² 2, 474	² 3, 143	² 1, 988
Malaria control.....		² 4, 224	² 7, 513	² 10, 597	² 7, 269
Division of venereal diseases.....	¹ 30, 998	³ 15, 731	³ 13, 086	³ 10, 771	10, 000
Tuberculosis sanatorium.....	69, 798	67, 906	59, 569	317, 671	315, 057
Division of administration ⁵	11, 930	12, 303	13, 342	13, 301	17, 197
Division of vital statistics ⁵	13, 894	15, 137	² 17, 026	15, 674	16, 366
Public health laboratory ⁵	19, 827	19, 214	18, 651	20, 623	21, 017
Division of sanitary engineering ⁵	9, 164	10, 384	10, 907	10, 680	11, 854
Division of child hygiene ⁵	6, 665	⁴ 10, 756	⁴ 17, 000	⁴ 28, 117	⁴ 51, 980
Training school for mental defectives.....	6, 249	30, 077	28, 272	29, 261	27, 920
County projects.....					

Divisions	1926	1927	1928	1929	1930
Total budget.....	^{2 4} \$274, 445	^{2 4} \$318, 605	^{2 4} \$503, 682	^{2 4} \$560, 856	² \$669, 467
Total budget exclusive of institutional funds.....	170, 716	167, 877	218, 295	212, 955	228, 133
Total State legislative budget.....	181, 431	231, 431	395, 000	395, 000	554, 770
Total State legislative budget exclusive of institutional funds.....	96, 431	96, 431	125, 000	125, 000	165, 000
Purchase of biological products.....	12, 268	8, 622	6, 869	6, 371	10, 000
Division of county health work (central division).....	² 6, 895	² 7, 922	² 9, 447	² 8, 889	² 9, 500
Malaria control.....	² 6, 997	² 5, 510	² 7, 076	² 8, 805	² 11, 000
Division of venereal diseases.....	7, 546	8, 081	10, 626	9, 951	10, 000
Tuberculosis sanatorium.....	65, 633	113, 161	162, 807	231, 747	330, 914
Division of administration ⁵	18, 103	16, 932	20, 176	21, 485	22, 500
Division of vital statistics ⁵	15, 830	17, 188	² 23, 867	² 21, 280	28, 000
Public health laboratory ⁵	20, 458	20, 480	31, 821	24, 360	29, 000
Division of sanitary engineering ⁵	10, 754	10, 879	13, 292	13, 074	14, 200
Division of child hygiene ⁵	⁴ 50, 519	⁴ 48, 570	⁴ 64, 840	⁴ 48, 128	36, 000
Training school for mental defectives.....	37, 384	35, 964	58, 784	64, 590	110, 420
County projects.....	3, 000	1, 500	11, 646	41, 391	37, 725

¹ Social hygiene board funds included. (See Table 115.)² Rockefeller Foundation funds included. (See Table 115.)³ U. S. Public Health Service funds included. (See Table 115.)⁴ U. S. Children's Bureau funds included. (See Table 115.)⁵ Accounts not kept previous to 1920.TABLE 115.—*Total appropriations for State department of health, by years*

GEORGIA

Year	Total appropriation	Total appropriation exclusive of institutional funds	Source of funds and amounts			
			State legislature	U. S. Public Health Service	U. S. Children's Bureau	Social hygiene board
1915.....	\$30, 500	\$30, 500	\$30, 500			
1916.....	30, 500	30, 500	30, 500			
1917.....	30, 500	30, 500	30, 500			
1918.....	30, 500	30, 500	30, 500			
1919.....	167, 081	100, 704	107, 000			\$28, 369
1920.....	316, 897	114, 562	250, 340			15, 000
1921.....	187, 436	111, 389	151, 590			15, 499
1922.....	207, 136	109, 153	172, 931	\$6, 164	\$6, 750	
1923.....	198, 706	110, 865	166, 431	2, 739	11, 000	
1924.....	465, 635	118, 703	418, 343	685	15, 250	
1925.....	485, 540	142, 563	421, 431		28, 490	
1926.....	274, 445	170, 716	181, 431		27, 480	
1927.....	318, 605	167, 877	231, 431		25, 960	
1928.....	503, 682	218, 295	395, 000		35, 451	
1929.....	560, 856	212, 955	395, 000		22, 816	
1930.....	669, 467	228, 133	554, 770			

TABLE 115.—*Total appropriations for State department of health, by years—Continued*

GEORGIA—Continued

Year	Source of funds and amounts					State legis- lature ap- propriation exclusive of institu- tion funds
	Special funds for venereal diseases and ma- ternal hygiene	Rocke- feller Founda- tion	Counties	Others	Balance	
1915.....						\$30,500
1916.....						30,500
1917.....						30,500
1918.....						30,500
1919.....		\$4,992		\$26,720		60,000
1920.....		4,525		47,031		90,590
1921.....	\$499	4,801		15,047		90,590
1922.....		4,808		16,483		91,431
1923.....		5,694		12,842		91,431
1924.....	4,450	6,887		20,020		91,431
1925.....	12,490	5,152		17,977		96,431
1926.....		7,603	\$12,589	2,238	\$24,375	96,431
1927.....		8,641	15,050	3,406	18,389	96,431
1928.....		11,221	22,410	2,019	22,194	125,000
1929.....		18,755	25,668	2,080	18,636	125,000
1930.....		16,812	28,613	10,725	6,983	165,000

IDAHO

DEPARTMENT OF PUBLIC WELFARE

Organization.—Idaho operates under the commission form of government. There is, therefore, no State board of health. In 1919, by act of the legislature, 51 State bureaus and boards were consolidated into 9 departments. This number was later reduced to seven. In one of these, the department of public welfare, is incorporated the former State board of health and also the office of dairy, food, and sanitary inspector. The department has direct supervision of the bureau of child hygiene, the bureau of vital statistics, the chemical and bacteriological laboratories, the Idaho Soldiers' Home, the Idaho State School and Colony for the Feeble-minded, and the Northern Idaho Sanitarium for the Insane. In addition, the commissioner of public welfare is charged with the supervision of the State's property at Lava Hot Springs.

EXECUTIVE OFFICER

Appointment of commissioner.—Each of the seven State departments is under the direction of a commissioner, appointed by the governor and authorized to execute the powers and discharge the duties vested by law in his department. There are no legal qualifications for this office.

Term of office and compensation.—The commissioner serves for two years and receives a salary of \$3,600 a year. His necessary traveling expenses are paid, with the limitation of \$5 per day for board and lodging.

Powers.—The commissioner of each department is empowered to prescribe regulations for the government of his department, the

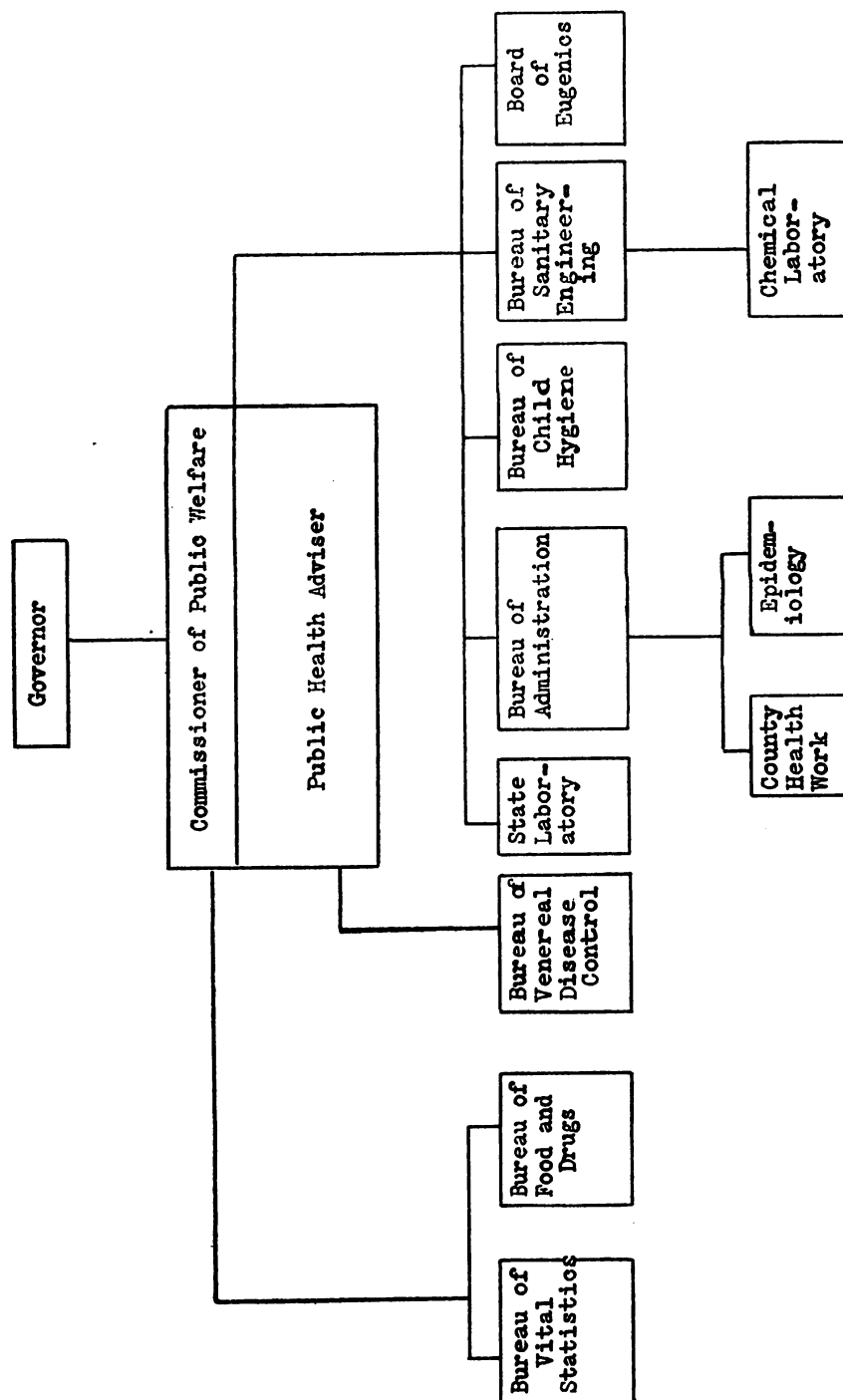
Idaho - Organization of the State Department of Public Welfare in 1930

FIGURE 28

conduct of its employees, the distribution and performance of its business, and the custody of the records. All officers created by the consolidation act of 1919 are appointed by the governor; other employees are appointed by the commissioners of the various departments.

PUBLIC-HEALTH ADVISER

In addition to the commissioner of the department of public welfare, there is a public-health adviser who is under the direction, supervision, and control of the commissioner and performs such duties as the latter prescribes.

Legal qualifications.—The public-health adviser must be a physician. He is appointed by the governor.

Term of office and compensation.—The adviser serves for a term of two years. He is a part-time official at present and receives a salary of \$2,280 a year.

Meetings.—There are no meetings of the department of public welfare.

POWERS OF THE DEPARTMENT OF PUBLIC WELFARE

Judicial, legislative, and executive powers.—The department of public welfare has no judicial or legislative power. It has the authority to enforce laws concerning sanitation in general, water pollution, milk supplies, sewage disposal, food adulteration, nuisances, communicable diseases, and quarantine, and has a limited amount of authority over midwives. The enforcement of the medical practice law is a function of the department of law enforcement.

APPROPRIATIONS

Biennial appropriations are made for the department of public welfare by bureaus. The legislature meets in January of odd years. The fiscal year of the department of public welfare ends December 31.

TABLE 116.—*Bureaus of the department of public welfare in 1930*¹

IDAHO

Bureaus	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$11,750	3	\$3,600	\$3,000	\$6,600
Bureau of venereal disease control.....	3,000	1	2,280		2,280
Bureau of vital statistics.....	2,820	3	(²)	1,820	2,820
State laboratory.....	10,400	4	(³)	5,200	5,200
Bureau of sanitary engineering.....	3,000	1	3,000		3,000
Bureau of child hygiene.....	5,000	2	2,100	1,200	3,300
Bureau of food and drugs.....	(⁴)	3	(⁵)	4,800	4,800
Board of eugenics.....	2,600	1			

¹ Total appropriation, \$37,750; total appropriation exclusive of tuberculosis sanatoria funds, \$37,750; total State legislative appropriation, \$37,750.

² The commissioner is included.

³ The commissioner is the director.

⁴ The State chemist is the director.

⁵ Included under bureau of administration.

BUREAU OF ADMINISTRATION

Personnel.—The staff of this bureau in 1930 was composed of the commissioner, a chief clerk, and a stenographer.

Civil service.—The employees of the department of welfare are not civil-service appointees. Changes in State administration affect the personnel of the department.

Disbursement of funds.—State funds are paid out by the State auditor upon claims approved by the board of examiners.

Purchases.—Requisitions are made to the bureau of supplies, which is an independent bureau directly under the governor.

County health work.—There is a board of health in each county. The department of public welfare interferes in local health matters only upon the refusal or neglect of the county board to act. A full-time county health unit was organized in this State in 1929 with a personnel of four.

Epidemiology.—The control of communicable diseases is carried on by the central staff of the department.

Reporting of diseases.—Cases of communicable diseases are reported within 24 hours to the department of public welfare by physicians and county and city health officers.

Quarantine.—Quarantine measures are under the control of county and city health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—There is no emergency fund for use by the department of public welfare in case of an epidemic.

Tuberculosis control.—No tuberculosis-control work of any kind is carried on by the department of public welfare.

Public-health education.—No publicity activities are carried on by the department of public welfare.

Bulletins.—No bulletins are issued.

Press service.—Press service is offered through the courtesy of newspaper editors throughout the State.

Equipment.—The department of public welfare does not own motion-picture films, slides, or a portable exhibit.

Cooperation.—The departments of public welfare and of education cooperate concerning the sanitation of school buildings.

BUREAU OF VENEREAL-DISEASE CONTROL

Personnel.—The public-health adviser is the director for the bureau of venereal-disease control. He was unassisted in 1930.

Activities.—Owing to lack of funds, the department has confined its work to the furnishing of medicine for the treatment of indigents by city and county health officers. Quarantine or isolation is urged by local officers.

Clinics.—There are no permanent or full-time venereal-disease clinics in the State.

Treatments.—No treatments were given by the public-welfare department during 1929, but medicines were furnished free of charge.

BUREAU OF VITAL STATISTICS

Personnel.—The commissioner is the director of the bureau of vital statistics. In 1930 he was assisted by two clerks.

Registration districts.—The city, the town, or the county exclusive of the cities and towns, is the registration district.

Local registrars.—The local registrars are appointed by the department of public welfare and are paid a fee of 25 cents by the county for each birth and death certificate issued.

Registration area.—Idaho was admitted to the registration area for deaths in 1922 and to the registration area for births in 1926.

Reporting of deaths.—In 1929, 95 per cent of the deaths occurring in the State were reported, all by physicians. Deaths must be reported at once to the local registrars and by the 10th of the month to the department of public welfare.

Legal standards.—The model law is not used, but an adequate law has been adopted. The international list of the causes of death and the standard certificate are used.

Reporting of births.—In 1929, 92 per cent of the births in the State were reported; of these, 96 per cent were reported by physicians, 3 per cent by midwives, and 1 per cent by others. Births must be reported to the local registrar within 10 days and to the department of public welfare by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The blanks for recording the returns are supplied by the State, and the postage is furnished by the registrar.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner by the registrar.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State commissioner of law enforcement. Midwives and undertakers are not licensed.

STATE LABORATORY

Personnel.—The State chemist has general supervision of the bacteriological laboratory. He was assisted in 1930 by a bacteriologist, a technician, and an assistant.

Branch laboratory.—The University of Idaho cooperates with the central laboratory through a branch laboratory financed by university funds.

Private laboratories.—The department of public welfare has no supervision over the private laboratories in the State.

Special laboratory.—The sanitary engineer is the State chemist, and the State chemical laboratory is included in the division of sanitary engineering.

Activities.—During 1929, 73,858 examinations were made by the central laboratory. The chief activities included Wassermann tests and examination of diphtheria and typhoid cultures. A summary of the diagnostic work is given on pages 98–99.

Fees.—No charges are made for laboratory services.

Biological products.—No biological products are manufactured or distributed by the department of public welfare.

BUREAU OF SANITARY ENGINEERING

Personnel.—The division of sanitary engineering is conducted by the State sanitary engineer, who is also the State chemist.

Public water supplies.—There is a departmental regulation providing for the prevention of pollution of the public water supplies.

Bottled waters.—There is no legislation concerning bottled water except that included under the food and drugs act, which is administered by the bureau of food, drugs, and sanitation, of the department of public welfare.

Analysis and inspection.—Public water supplies are analyzed twice a year, and water-purification plants are inspected twice each year.

Ice.—A State law provides for the prevention of pollution of water from which ice is made for domestic purposes.

Sewage disposal.—The department supervises the disposal of sewage without legislative authority.

Camps.—The sanitation of camps is supervised without legislative authority.

Swimming pools.—A departmental regulation has been passed concerning the sanitary conditions of swimming pools.

Roadside water supplies.—There is no legislation concerning roadside water supplies.

Milk laws.—The enforcement of milk laws is entrusted to the department of public welfare. Examinations of milk supplies are made to determine whether market milk meets the State requirements. Dairies receive sanitary inspection certificates. Some cities require licenses for the operation of dairies. The dairy industry is recognized as one of the foremost industries of the State. As yet no regulations have been passed relating to the pasteurization of milk, and the tuberculin testing of cattle is not required.

BUREAU OF CHILD HYGIENE

Personnel.—In 1930 the staff of the bureau of child hygiene consisted of a director, an associate director, and a clerk.

Prenatal clinics.—Sixty-five prenatal clinics were held during 1929 by local organizations. The department of public welfare does not carry on any prenatal work.

Midwifery.—Midwives are required to register with the local registrar of vital statistics, but they are not licensed.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported at once to the local health officer. In addition, a germicide of proven efficiency must be instilled into the eyes of the new born.

Lying-in hospitals and orphanages.—Maternity hospitals are licensed by the department of public welfare. Orphanages are not licensed.

Infant and preschool hygiene.—During 1929, 14 infant and preschool clinics were conducted by the bureau. A total of 603 children was examined at these clinics.

School hygiene.—No school-hygiene activities are carried on by the department of public welfare, and there are no legislative requirements with regard to the medical examination of school children.

Public-health nursing.—No public-health nursing activities are carried on in this State.

BUREAU OF FOOD AND DRUGS

Personnel.—The bureau of food and drugs was established in 1916. The commissioner acts as the director for the division. In 1930 he was assisted by two inspectors.

Activities.—The chief function of the bureau of food and drugs is to inspect places where food or drinks are prepared or handled. The standards of quality, purity, and strength established by the Federal Government for food and drugs have been adopted by Idaho, except in specific instances.

Food handlers.—Employees of public eating places are required to obtain certificates showing freedom from tuberculosis, syphilis, and typhoid fever. These certificates must be renewed every six months.

Inspection.—The inspection of food and of places where food is handled, served, kept, or stored is required. Sanitary-inspection certificates are necessary in order to run places where food is handled. A restaurant law and a health certificate law have been adopted recently. Slaughterhouses are inspected also. Another important phase of this work is the protection of the public from fraudulent or adulterated food products.

Shellfish areas.—The sanitary control of areas where shellfish are gathered is a function of this bureau.

BOARD OF EUGENICS

Personnel.—The board of eugenics consisted in 1930 of six members, including the public-health adviser, who is secretary of the board.

Activities.—The board passes upon cases presented for sterilization and issues the necessary orders in each case. Operations must be performed under the supervision of the State medical adviser. The law is now being tested in court for constitutionality, and no operations have been performed up to the present.

TABLE 117.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

IDAHO

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$18,895	\$18,895	\$21,497	\$21,498	\$30,790	\$29,757
State legislative budget.....	18,895	18,895	21,497	21,498	27,250	27,250
Bureau of vital statistics.....					1,965	1,965
State laboratory.....					6,295	6,295
Bureau of child hygiene.....					3,800	
Bureau	1921	1922	1923	1924	1925	
Total budget.....	\$34,846	\$40,165	\$37,179	\$38,331	¹ \$43,717	
State legislative budget.....	33,660	33,650	30,010	30,010		32,323
Bureau of vital statistics.....	2,825	2,825	2,500	2,500		2,745
State laboratory.....	6,445	6,445	7,000	7,000		7,250
Bureau of child hygiene.....		5,000	11,250	7,913		¹ 14,692
Central office.....						⁴ 11,930
Bureau of venereal disease control.....						³ 3,100
Bureau of sanitary engineering.....						² 4,000
Bureau	1926	1927	1928	1929	1930	
Total budget.....	¹ \$43,717	¹ \$45,872	¹ \$45,872	² \$43,550	\$37,750	
State legislative budget.....	34,617	36,772	36,772	37,750	37,750	
Bureau of vital statistics.....	2,745	3,140	3,140	3,120	2,820	
State laboratory.....	7,250	10,632	10,632	10,400	10,400	
Bureau of child hygiene.....	¹ 5,308	¹ 10,000	10,000	10,000	5,000	
Central office.....	⁴ 11,390	⁴ 17,500	⁴ 17,500	⁴ 11,750	⁴ 11,750	
Bureau of venereal disease control.....	3,100	1,100	1,100	2,500	3,000	
Bureau of sanitary engineering.....	² 4,000	² 3,500	² 3,500	² 2,400	3,000	
Board of eugenics.....				2,600	2,600	

¹ U. S. Children's Bureau funds included. (See Table 118.)

² U. S. Public Health Service funds included. (See Table 118.)

³ Rockefeller Foundation funds included. (See Table 118.)

⁴ Budget for food and drugs included.

TABLE 118.—*Total appropriations for department of public welfare, by years*

IDAHO

Year	Total ap- propria- tion	Source of funds and amounts			
		State legis- lature	U. S. Public Health Service	U. S. Chil- dren's Bureau	Rocke- feller Founda- tion
1915	\$18,895	\$18,895			
1916	18,895	18,895			
1917	21,497	21,497			
1918	21,497	21,497			
1919	30,790	27,250	\$3,540		
1920	29,757	27,250	2,507		
1921	34,846	33,650	1,196		
1922	40,165	33,650	1,515	\$5,000	
1923	37,179	30,010	919	6,250	
1924	38,331	30,010	409	7,913	
1925	43,717	32,322	102	9,692	\$1,600
1926	43,717	34,617		7,500	1,600
1927	45,872	36,772		7,500	1,600
1928	45,872	36,772		7,500	1,600
1929	43,550	37,750		5,000	800
1930	37,750	37,750			

ILLINOIS

STATE DEPARTMENT OF PUBLIC HEALTH

Organization.—In July, 1877, the State of Illinois created a board of health comprising seven members, to be appointed by the governor. In 1917 the civil administrative code of Illinois was enacted. This act abolished the State board of health and created the present department of public health, with a director as the executive, an assistant director, a superintendent of lodging-house inspection, and a board of public-health advisers composed of five persons appointed by the governor. There are no legal qualifications for membership on the board of public-health advisers. The department of public health now exercises the rights, powers, and duties formerly exercised by the State board of health.

Term of office and compensation.—A member of the board of public-health advisers holds office until his successor is appointed. Members do not receive any compensation, but their necessary traveling expenses are paid.

Meetings.—Meetings are held quarterly and special meetings may be called.

EXECUTIVE OFFICER

Legal qualifications.—The director of public health must be licensed to practice medicine and surgery in the State, must have had at least five years' experience in the practice of medicine and surgery in the State, and at least six years' practical experience in public-health work. He is appointed by the governor, by and with the advice and consent of the senate. He is not a member of the board.

Illinois - Organization of the State Department of Health in 1930

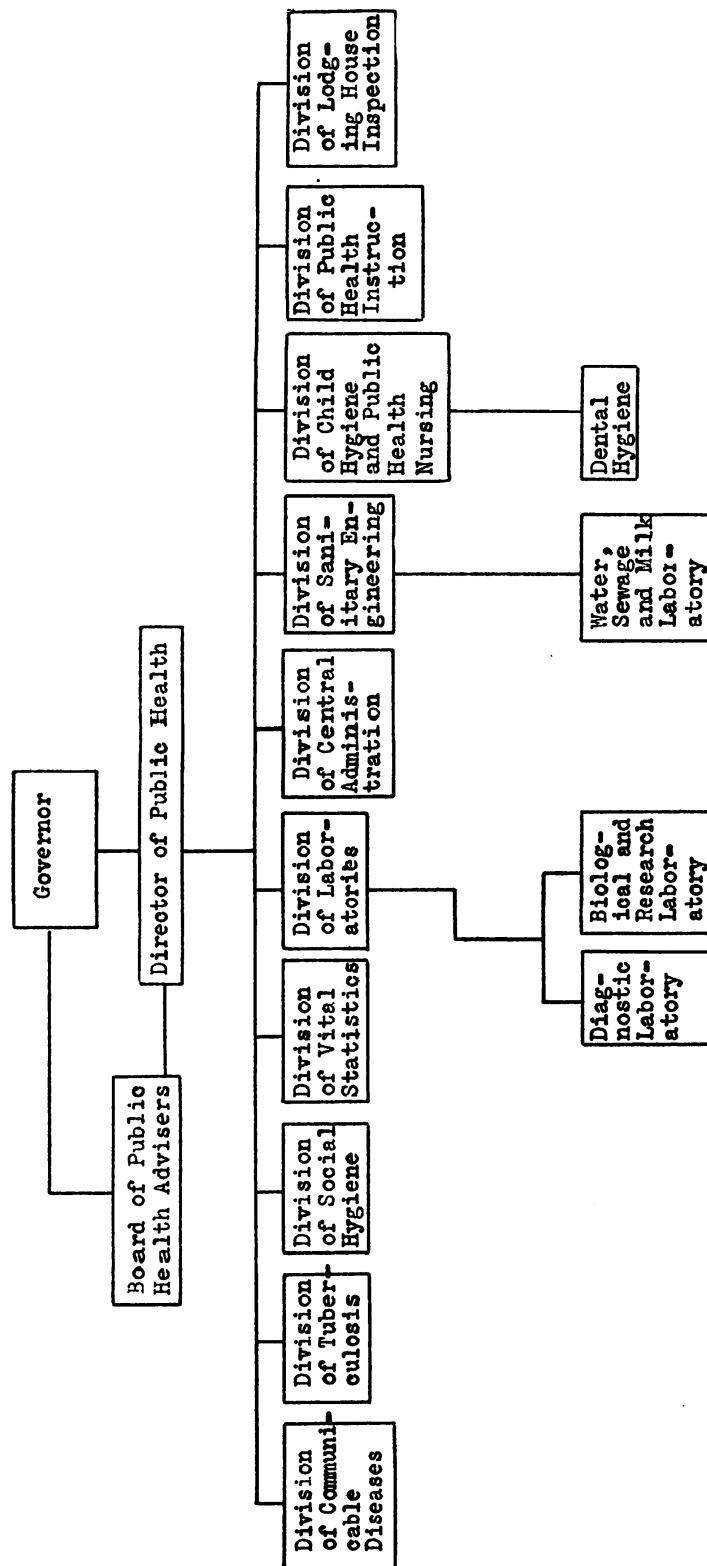


FIGURE 30

Term of office and compensation.—The executive officer serves for a term of two years. He receives a salary of \$7,000 and traveling expenses sufficient to enable him to attend to all duties connected with his office.

Authority.—The executive officer is not legally required to accept or to follow recommendations made by the board of public-health advisers. He may or may not make extensive use of the board in its advisory capacity.

POWERS OF THE STATE DEPARTMENT OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—The State department of public health has no judicial power. The legislature may, in the exercise of police authority, create ministerial boards of health, with power to prescribe rules and impose penalties for their violations. Such exercise of power is not a declaration of legislative authority, however, for the powers of the board are purely advisory in character. All responsibility for the policies and functions of the State department of public health repose in the director of that department. The department has executive power concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, and in the sanitary supervision of milk-pasteurization plants. The enforcement of the milk laws and the prevention of the adulteration of food are functions of the department of agriculture. The medical practice act and the supervision of midwives fall under the jurisdiction of the department of registration and education.

APPROPRIATIONS

Biennial appropriations are made by the State legislature for the department of public health by divisions and items. The legislature meets in January of odd years. The fiscal year of the department of public health ends June 30.

TABLE 119.—*Divisions of the State department of public health in 1930*¹

ILLINOIS

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central division.....	\$72,835	10	\$7,000	\$19,850	\$26,850
Division of communicable diseases.....	110,278	² 25	5,000	80,400	85,400
Division of tuberculosis.....	7,525	² 3	(³)	6,120	6,120
Division of social hygiene.....	79,865	23	5,000	37,520	42,520
Division of vital statistics.....	48,699	29	2,820	39,580	42,400
Division of laboratories.....	115,134	29	4,200	41,560	45,760
Division of sanitary engineering.....	70,960	24	4,800	53,360	58,160
Division of child hygiene and public-health nursing.....	81,190	27	4,500	57,560	62,060
Division of lodging-house inspection.....	39,375	12	4,000	32,000	36,000
Division of public-health instruction.....	16,400	² 5	4,000	6,200	10,200

¹ Total appropriation, \$642,261; total appropriation exclusive of tuberculosis-sanatoria funds, \$642,261; total appropriation from State legislature, \$642,261.

² Officials included whose time is devoted to more than 1 activity.

³ The assistant director of public health acts as chief of the division of tuberculosis. His salary is \$4,200.

CENTRAL DIVISION

Personnel.—In 1930 the personnel of the central division consisted of the director, the assistant director, an accountant, a department secretary, a central file clerk, and five clerks.

Civil service.—The employees of the State department of public health are civil-service appointees. Changes in State administration do not affect the personnel of the department.

Activities.—The central division supervises the clerical and stenographic staff of all divisions; has charge of pay rolls, accounts and records, and of all inventories of the different divisions of the department; and has the custody of all contracts.

Disbursement of funds.—All accounts must be sent to the department of finance accompanied by vouchers. If the accounts are correct, the department of finance forwards them to the State auditor, who draws warrants on the State treasurer for the amounts.

Purchases.—All purchases for the department of public health are made through the division of purchases and construction of the department of public works and buildings.

County health work.—Between 1922 and 1929 Illinois established six full-time county health departments. There is no legal provision for the establishment and maintenance of county health departments in Illinois and by the close of 1930 these units had been discontinued. In political units not otherwise provided with public-health officers, the county commissioners and county supervisors constitute by law the local boards of health. The State department of public health functions through these officials, and their rules and regulations prevail in all areas not covered by local ordinances.

Contingent fund.—On July 1, 1929, a contingent fund of \$30,000 became available to the department of public health. This fund can be used for departmental activities only with the written approval of the governor. It is used to carry out regular activities for which appropriations prove inadequate.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—In 1930 the personnel of this division consisted of an epidemiologist, an assistant epidemiologist, 12 district health superintendents, 2 quarantine officers, and 9 stenographers and clerks.

Reporting of diseases.—The local health authorities must transmit copies of all reports of communicable diseases to the department of public health within 12 hours.

TABLE 120.—Data on full-time counties operating throughout 1929

ILLINOIS

County	Organized	1929 population	Total budget	Per capital tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
						Health officer	Nonmedical health officer	Inspector	Nurse	Clerk
Morgan.....	1922	34, 143	\$9, 940	\$0. 28	Jacksonville (17,522).....	1	-----	1	2	1
Cook.....	1924	1 572, 613	1 32, 400	. 06	Berwyn (43,719)..... Blue Island (16,000). Chicago (3,307,963). Chicago Heights (22,047). Cicero (63,697). Evanston (59,311). Forest Park (14,170). Harvey (15,669). Maywood (24,312). Oak Park (61,422). Brookfield (9,376). Calumet City (11,794). Elmwood Park (10,173). La Grange (9,747). Melrose Park (10,409). Park Ridge (9,719). Wilmette (14,438). Winnetka (11,545). Elmhurst (12,680).....	1	-----	13	-----	
Du Page.....	1926	81, 063	15, 000	. 19	-----	-----	1	-----	4	1
Total.....	-----	687, 819	57, 340	. 08	-----	2	1	1	19	3

¹ Exclusive of Chicago.

Quarantine.—The control of communicable diseases is under the jurisdiction of the local health authorities.

Smallpox vaccination.—Smallpox vaccination is not compulsory in Illinois.

Emergency fund.—An emergency fund of \$50,000 is provided for the department of finance. This fund may be used by the department of public health, with the approval of the governor, for the prevention and suppression of epidemic diseases or in case of a severe epidemic or other emergency.

Shellfish.—The control of the pollution of shellfish as a factor in preventing the spread of disease is a function of the division of communicable diseases.

DIVISION OF TUBERCULOSIS

Personnel.—In 1930 the assistant director of the department of public health acted as chief of the division of tuberculosis, as has been customary since the organization of the division. He was provided with a stenographer. The office of expert diagnostician was vacant during the year ending June 30, 1930.

Sanatoria.—Acts have been passed authorizing counties, cities, and villages to establish and maintain tuberculosis sanatoria, dispensaries, etc., and to levy and collect a tax to pay the cost of their establishment and maintenance. In 1929 the county tuberculosis sanatorium

law was in operation in 47 of the 102 counties. The State department of public health acts in an advisory capacity with respect to sanatoria, inspects and scores county and municipal sanatoria and clinics, approves plans and specifications for proposed sanatoria, and helps in supervising and promoting programs for city and county tuberculosis work and public-health nursing service. There are no State sanatoria in Illinois.

Tuberculosis dispensaries.—There are no dispensaries under the control of the State department of public health, but the department furnishes sputum containers and free laboratory service.

Milk supplies.—The most important work in which the division of tuberculosis has engaged relates to milk supplies. About 70 cities have passed a model sanitary milk ordinance, and as a result about 75 per cent of the milk in Illinois is now pasteurized.

DIVISION OF SOCIAL HYGIENE

Personnel.—In 1930 the personnel of the division of social hygiene consisted of a director, an office supervisor, an industrial supervisor, three medical health officers, four investigators, two sanitary officers, two laboratory assistants, one bacteriologist, six stenographers and clerks, a bookkeeper, and a janitor.

Activities.—The department of public health carries on an active program for the treatment of disease carriers and emphasizes repressive and educational measures.

Clinics.—The State department of public health subsidizes clinics and distributes arsphenamine and allied products for the treatment of indigents. The clinical service established in the past under a co-operative plan has been continued. Its purpose is primarily to prevent the spread of venereal diseases through contact with infectious patients. None but indigents have been treated in the clinics, but the operation of the clinics has served a wider purpose in that they have stimulated case reports and a more thorough public understanding of the importance of treatment. In 1929 there were 27 clinics, with a capacity of 70,688 patients, under the supervision of the department of public health. Twelve of these were subsidized clinics. Usually the city pays a third of the expenses, the county a third, the State department of public health the amount indicated in the contract, and the industries in the city the balance. About 20 other clinics are furnished a large amount of arsenicals for treatment, provided they make detailed monthly reports to the department.

Treatments.—During 1929 a total of 274,421 free treatments, 45,221 of which were with salvarsan, were administered by the State department of public health.

DIVISION OF VITAL STATISTICS

Personnel.—In 1930 the staff of the division consisted of the State registrar, an assistant registrar, a medical assistant registrar, 2 field agents, 23 stenographers and clerks, and a messenger.

Registration districts.—The following constitute primary registration districts in Illinois: (1) Each city, village, and incorporated town; (2) each township in counties under township organization; (3) each road district in counties not under township organization. These districts are accorded registration district numbers and are so designated.

Local registrars.—Clerks of the city, village, township, or road districts are ex officio the local registrars. In many of the larger cities, however, the health commissioners act as local registrars. Where a registration district is divided, or where two are combined, the State department of public health appoints the local registrar. Local registrars receive 25 cents from the county for each birth and death certificate issued, provided the original is forwarded to the department of public health and a copy is kept for the local files. In a few cities and villages, where the local registrar receives a fixed salary as clerk of the city or village, he is directed to turn these fees into the city or village treasury.

Registration area.—Illinois was admitted to the registration area for deaths in 1918, and to the registration area for births in 1922.

Reporting of deaths.—In 1929, 98 per cent of the deaths occurring in the State were reported; of these, 1 per cent was reported by physicians, 98 per cent by undertakers, and 1 per cent by others. Deaths must be reported to the local registrar within 72 hours and to the State registrar by the 10th day of the following month.

Legal standards.—The model law, the standard certificate with additions, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 96 per cent of all births were reported; of these, 92 per cent were reported by physicians, 3 per cent by midwives, and 5 per cent by others. Births must be reported to the local registrars within 10 days after occurrence and by the 10th day of the following month to the State registrar. Completeness of birth registration is promoted by mailing to the parents an especially designed certificate of birth as promptly as possible after the birth has been registered with the State registrar.

Stillbirths.—A stillborn child is registered as a stillbirth, and a certificate of stillbirth is filed with the local registrar in the same manner as that required for a certificate of death.

Blanks and postage.—Blanks for recording the returns are supplied by the department of public health.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are prerequisite to interment and are issued by the local registrar when the death certificate is filed.

Licensing.—Physicians, midwives, and embalmers are licensed by the State department of registration and education. Undertakers are not licensed.

DIVISION OF LABORATORIES

Organization.—The State department of public health is required by law to maintain such chemical, bacteriological, and biological laboratories as may be deemed necessary to protect the people of the State. The division of laboratories is composed of the diagnostic laboratory and the biological and research laboratories. These, together with the seven branch laboratories, are administered by the chief bacteriologist of the biological and research section according to civil service regulations.

Personnel.—In 1930 the personnel of the central laboratory consisted of the division chief, an office secretary, seven bacteriologists, three technicians, five stenographers and clerks, and two dieners. Three serologists are paid from the appropriation of the division of social hygiene for venereal disease work in the city of Chicago.

Branch laboratories.—There are seven branch laboratories, five of which make examinations for diphtheria diagnosis only. These branch laboratories are located as follows:

ALL EXAMINATIONS

Chicago branch laboratory, Chicago.
Holden Hospital laboratory, Carbondale.

DIPHTHERIA DIAGNOSIS ONLY

Decatur and Macon County Hospital laboratory, Decatur.
East St. Louis branch laboratory, East St. Louis.
Lutheran Hospital laboratory, Moline.
St. Mary's Hospital laboratory, Kankakee.
University of Illinois laboratory, Urbana

There is a special fund of \$10,000 per year for the services of bacteriologists, serologists, chemists, and clerks in the branch laboratories.

Private laboratories.—The State department of public health has no supervision over the private laboratories of the State, but a system of certification of private laboratories has been found satisfactory. During 1928, 28 municipal, hospital, and clinical laboratories were approved for public-health laboratory work.

Special laboratories.—Three laboratories, a water and sewage laboratory, a mobile water laboratory, and a mobile milk laboratory, are maintained by the division of sanitary engineering.

Activities.—During 1929, 129,269 examinations were made by the diagnostic and special laboratories. A summary of these examinations is given on pages 98–99. The chief activities of the diagnostic laboratories were the examinations for venereal diseases, undulant fever, tularemia, and rabies. Additional laboratory examinations were made by the serologists of the division of social hygiene for the Chicago health department.

Fees.—No charges are made for laboratory services.

Biological and research laboratory.—It was originally intended that the biological and research laboratory should manufacture all biological products used by the department. This has been found impractical, however, owing to inadequate quarters. Autogenous vaccines are manufactured, to a limited extent, for certain of the State hospitals; and vaccines and sera are distributed by the laboratory free of charge. A detailed analysis of the amount of biological products distributed is given on page 102, Table 44.

Research.—The nucleus of a research staff has been established at the Chicago branch laboratory. Its work has been done largely in collaboration with the research hospital of the University of Illinois College of Medicine.

DIVISION OF SANITARY ENGINEERING

Personnel.—The staff of this division in 1930 was composed of a chief sanitary engineer, seven assistant engineers, a supervisor of rural sanitation, an engineering assistant, two milk sanitarians, a milk bacteriologist, three water and sewage bacteriologists and chemists, two laboratory helpers, and six clerks and stenographers.

Public water supplies.—It is provided by law that the department of public health shall act in an advisory capacity in the matter of public water supplies and shall exercise supervision over nuisances growing out of the operation of such supplies. Plans for new or improved water supplies are reviewed. Periodical field inspections and analyses of all public water supplies are made. In cooperation with county officials, investigations and analyses are made of school water supplies, which are publicly owned, but distinct from municipal supplies.

In 1929 a law creating a State sanitary water board was enacted. This board includes the director of public health as one of its members and specifies that the chief of the division of sanitary engineering shall be technical secretary of the board. The board has wide powers in controlling factors which cause stream pollution. In practice the sanitary engineering division executes the work of the board.

Private water supplies.—The law provides that the department of public health may act only in an advisory capacity with regard to private water supplies. Field investigations are made occasionally,

but most of the work in connection with private water supplies consists of reviewing information submitted by owners of the supplies, making analyses, and giving opinions based upon the data submitted.

Bottled and mineral waters.—There are no laws or departmental regulations governing bottled or mineral waters. Investigations and analyses are made occasionally upon request.

Roadside water supplies.—Inspection of roadside water supplies and the placing of seals on sources of water which may be used with safety by the motor-traveling public has been done to some extent. This work has been limited by lack of travel funds.

Water analyses.—Public water supplies are analyzed at regular intervals; the frequency varies according to the type of the supply. The analyses are used to supplement the field inspections and to maintain a check on the supplies between inspections.

Inspection.—Water-purification plants are inspected irregularly, generally annually or semiannually.

Laboratory work.—A mobile laboratory fully equipped for making analyses of drinking water, sewage, and water from polluted streams was placed in service during the summer of 1929. This was a material improvement on the former procedure of transporting field laboratory equipment in boxes in ordinary motor vehicles. A total of 6,047 analyses was made in the main laboratories of the division of sanitary engineering during 1929, and 577 analyses in the mobile water and sewage laboratory. The mobile laboratory was in service about two months of the year only, and most of the analyses were of sewage, wastes, and water from polluted streams.

Ice.—No laws or departmental regulations govern ice supplies. Occasional field inspections of ponds and analyses of ice samples are made.

Sewage disposal.—Until July 1, 1929, the department of public health acted by law in an advisory capacity with regard to sewage-disposal plants and exercised supervision over nuisances growing out of the operation of such plants. A law which went into effect at that time provided for a sanitary water board made up of the director of public health, the director of conservation, the director of agriculture, the director of purchases and construction, a fifth member appointed by the governor to represent industries, and the chief sanitary engineer of the department of public health, who was to act as technical secretary of the board. The law consolidates in this one board the powers concerning stream pollution, which previously rested in various State agencies, and extends these powers to full jurisdiction over sewerage works and stream pollution. Most of the field investigations, analyses, and other technical work of the board devolves upon the sanitary engineering division of the health department.

Swimming pools.—No laws or departmental regulations govern swimming pools. The department acts in an advisory capacity and

recommends that pools be installed and maintained so as to conform to the standards for swimming pools as promulgated and adopted by the conference of State sanitary engineers and the American Public Health Association. Routine analyses and occasional inspections of pools are made where the pool owners or managers agree to maintain suitable operating records.

Camps and fairgrounds.—No laws or departmental regulations govern camps of any kind. Advice is given and inspections of sanitary conditions are made upon request. Since 1926 annual inspections of water supplies and sewerage facilities at all county fairgrounds have been made in cooperation with the State department of agriculture, in order to improve sanitary conditions.

Malaria and mosquitoes.—Upon request, advice is given and field investigations are made relative to mosquito and malaria control. Since the enactment of a law authorizing the creation of mosquito-abatement districts and the levying of a special tax for mosquito-control work, four mosquito-abatement districts have been established, three in northern Illinois where the mosquito problem is one of nuisance only, and one in southern Illinois where it presents a malaria problem as well.

Milk.—A law effective in 1925 provides that all milk pasteurization plants shall operate under certificate issued by the department of public health. These certificates are issued if the plants are found to comply with the law and minimum requirements promulgated by the department. Jurisdiction over other milk supplies in Illinois rests with the division of foods and dairies of the department of agriculture. A fully equipped mobile milk laboratory, which has been in service since 1927, helps to enforce the provisions of the milk pasteurization plant law. During five months of 1929, 4,776 samples of milk were analyzed in the mobile milk laboratory. No analyses are made of shipped samples of milk. The law exempts plants which sell milk in cities of 100,000 or more population. The department cooperates with municipalities in the preparation and adoption of milk ordinances.

DIVISION OF CHILD HYGIENE AND PUBLIC HEALTH NURSING

Personnel.—The staff of the division of child hygiene and public health nursing in 1930 consisted of a division chief (a physician), an assistant chief (a physician), a specialist in health education (a physician), 2 pediatricists, 2 dentists, a supervisor of school health education, a chief supervising nurse, 12 district supervising nurses, 3 nurses for special demonstration work, and 3 stenographers.

Maternal and infant hygiene.—Maternal and infant hygiene is promoted by means of county-wide distribution of prenatal literature and personal instruction, demonstrations in breast feeding, and the organization of mothers' study clubs.

Midwifery.—Midwives are licensed by the State department of registration and education. They are in no way supervised or instructed by the State department of public health.

Ophthalmia neonatorum.—A law passed in 1915 states that all physicians and midwives must use such prophylactic measures in preventing ophthalmia neonatorum as is prescribed by the State department of public health.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed and supervised by the State department of public welfare.

Better-baby conferences.—The division does not conduct better-baby conferences, but it gives assistance to local medical groups sponsoring such conferences.

Preschool and school examinations.—In a few cities the medical inspection of school children is conducted by physicians giving full-time or part-time service; in others, by volunteer service from physicians; while in many schools no such service is provided. The physicians and nurses of this division assist local communities upon request. During 1929, 27 preschool clinics were conducted by the division and 3,765 children were examined.

Dental hygiene.—In 1927 a dental-hygiene section was added to the division of child hygiene and public-health nursing. The work is conducted by a superintendent of mouth hygiene (a dentist), an assistant dentist, and a nurse.

Public-health nursing.—The activities carried on by the public-health nurses of this division are as follows: Advice to public-health nurses in the State, promotion of public-health nursing services, assistance to communities in securing qualified nurses, and information relative to public-health nursing.

Eligibility requirements.—All nurses employed by the State department of public health must be registered nurses who have had training in public health at a recognized school and extensive experience in all phases of public-health nursing.

DIVISION OF PUBLIC-HEALTH INSTRUCTION

Personnel.—In 1930 the personnel of the division of public-health instruction consisted of a chief, a librarian, a stenographer, a mail clerk, and a part-time helper.

Bulletins.—Two regular periodicals are published: The Illinois Health Messenger, a newspaper printed twice a month; and the Illinois Health Quarterly, a more technical periodical devoted to articles and statistical data of value to public-health workers.

Press articles.—A 300-word story on some public-health topic and a page of pointed paragraphs are mailed to all papers of the State each week.

Visual education.—A loan library is maintained from which motion-picture films, pictorial films, posters, and mobile-exhibit models may be borrowed.

Literature.—Leaflets and pamphlets dealing with public-health problems are published from time to time and distributed as occasion requires throughout the State.

Equipment.—The department of health owns stereopticons, slides, and motion-picture films.

Cooperation.—The State departments of health and education cooperate in promoting the training of teachers in health subjects.

DIVISION OF LODGING-HOUSE INSPECTION

Personnel.—In 1930 the staff of the division of lodging-house inspection consisted of a superintendent, 10 inspectors, and a secretary.

Activities.—The division is charged with the supervision and control of certain sanitary features of lodging houses, boarding houses, hotels, etc., in cities of 100,000 population or over. On account of this limitation as to population, the activities of the division are confined to the city of Chicago.

TABLE 121.—Total budget, State legislative budget for health work, and budgets by divisions, by years

ILLINOIS

Divisions	1917	1918	1919	1920	1921	1922	1923
Total budget.....	\$264,860	\$264,860	\$326,805	\$324,305	\$579,969	\$575,190	\$523,269
State legislative budget.....	234,206	234,206	326,805	324,305	579,969	575,190	523,269
Central division.....	31,283	31,283	31,875	30,824	65,059	62,185	78,520
Division of communicable diseases.....	104,831	104,831	57,285	53,697	171,955	170,870	76,400
Division of tuberculosis.....	5,862	5,863	3,735	3,800	4,225	4,225	9,625
Division of vital statistics.....	19,272	19,272	30,165	31,350	38,400	37,635	39,465
Division of laboratories ¹	14,476	14,477	66,574	67,873	84,795	83,870	95,632
Division of sanitary engineering.....	33,281	33,282	27,643	34,133	47,300	46,185	44,900
Division of lodging house inspection.....	-----	15,200	15,035	15,290	20,775	20,775	20,025
Division of social hygiene.....	-----	-----	100,000	100,000	100,000	100,000	85,950
Division of public health instruction.....	-----	-----	8,628	6,803	11,645	12,470	12,646
Division of child hygiene and public health nursing.....	-----	-----	26,120	18,980	22,815	34,975	34,204
Surveys and rural hygiene.....	-----	-----	7,845	9,555	(²)	(²)	(²)
Rabies.....	-----	-----	2,000	2,000	2,000	2,000	(³)
Divisions	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$514,122	\$573,132	\$565,755	\$644,766	\$644,518	\$677,461	\$642,261
State legislative budget.....	514,122	573,132	565,755	644,766	644,518	677,461	642,261
Central division.....	64,873	81,090	75,602	86,407	86,410	98,835	72,835
Division of communicable diseases.....	80,305	108,177	108,177	111,773	109,273	110,278	110,278
Division of tuberculosis.....	7,625	8,672	4,280	8,330	7,330	7,525	7,525
Division of vital statistics.....	39,560	42,604	44,404	44,944	44,944	48,699	48,699
Division of laboratories ¹	97,212	105,340	103,749	108,544	107,594	115,134	115,134
Division of sanitary engineering.....	44,320	56,586	58,426	63,710	64,310	70,960	70,960
Division of lodging house inspection.....	20,525	30,775	31,175	39,275	40,075	38,575	39,375
Division of social hygiene.....	85,950	87,285	87,285	87,890	87,890	89,865	79,865
Division of public health instruction.....	12,646	14,438	14,842	15,433	14,732	16,400	16,400
Division of child hygiene and public health nursing.....	35,204	38,165	37,815	78,460	81,960	81,190	81,190
Surveys and rural hygiene.....	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Rabies.....	(³)	(³)	(³)	(³)	(³)	(³)	(³)

¹ Budget for diagnostic and biological laboratories, and for purchase of biologicals.

² In 1921 incorporated in division of sanitary engineering.

³ From 1923 on, included under central division.

TABLE 122.—*Total appropriations for State department of public health, by years*

ILLINOIS

Year	Total appropriation	Source of funds and amounts		Year	Total appropriation	Source of funds and amounts	
		State legislature	United States Public Health Service			State legislature	United States Public Health Service
1917.....	\$264,860	\$234,206	\$30,654	1924.....	\$514,122	\$514,122	-----
1918.....	264,860	234,206	30,654	1925.....	573,132	573,132	-----
1919.....	326,805	326,805	-----	1926.....	565,755	565,755	-----
1920.....	324,305	324,305	-----	1927.....	644,766	644,766	-----
1921.....	579,969	579,969	-----	1928.....	644,518	644,518	-----
1922.....	575,190	575,190	-----	1929.....	677,461	677,461	-----
1923.....	523,269	523,269	-----	1930.....	642,261	642,261	-----

INDIANA

STATE BOARD OF HEALTH

Organization.—The State board of health is composed of five members. The governor, the State auditor, and the secretary of state act as a body to appoint four members of the board. No legal qualifications are required for appointment. The fifth member is the State health commissioner, who is elected by the board from outside its members.

Term of office and compensation.—The members serve for a period of four years, the terms of two members expiring every two years. They are paid \$10 a day and traveling expenses while in session.

Meetings.—Regular quarterly meetings are held and special meetings may be called by the secretary of the board when necessary.

EXECUTIVE OFFICER

Legal qualifications.—The State health commissioner, who is also the secretary of the board, must be an able-bodied, licensed physician, of good moral character, thoroughly informed and experienced in hygiene and sanitation. He is required to devote his entire time to the duties of his office.

Term of office and compensation.—The State health commissioner serves for a term of four years. He receives a yearly salary of \$5,500 and necessary traveling expenses within the State. Reimbursement for traveling expenses outside the State requires the approval of the governor.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health exercises quasi judicial, legislative, and executive authority with regard to sanitation, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, and quarantine. Jurisdiction over violations of the medical practice law and the supervision of midwives are functions of the board of medical registration.

Indiana - Organization of the State Department of Health in 1930

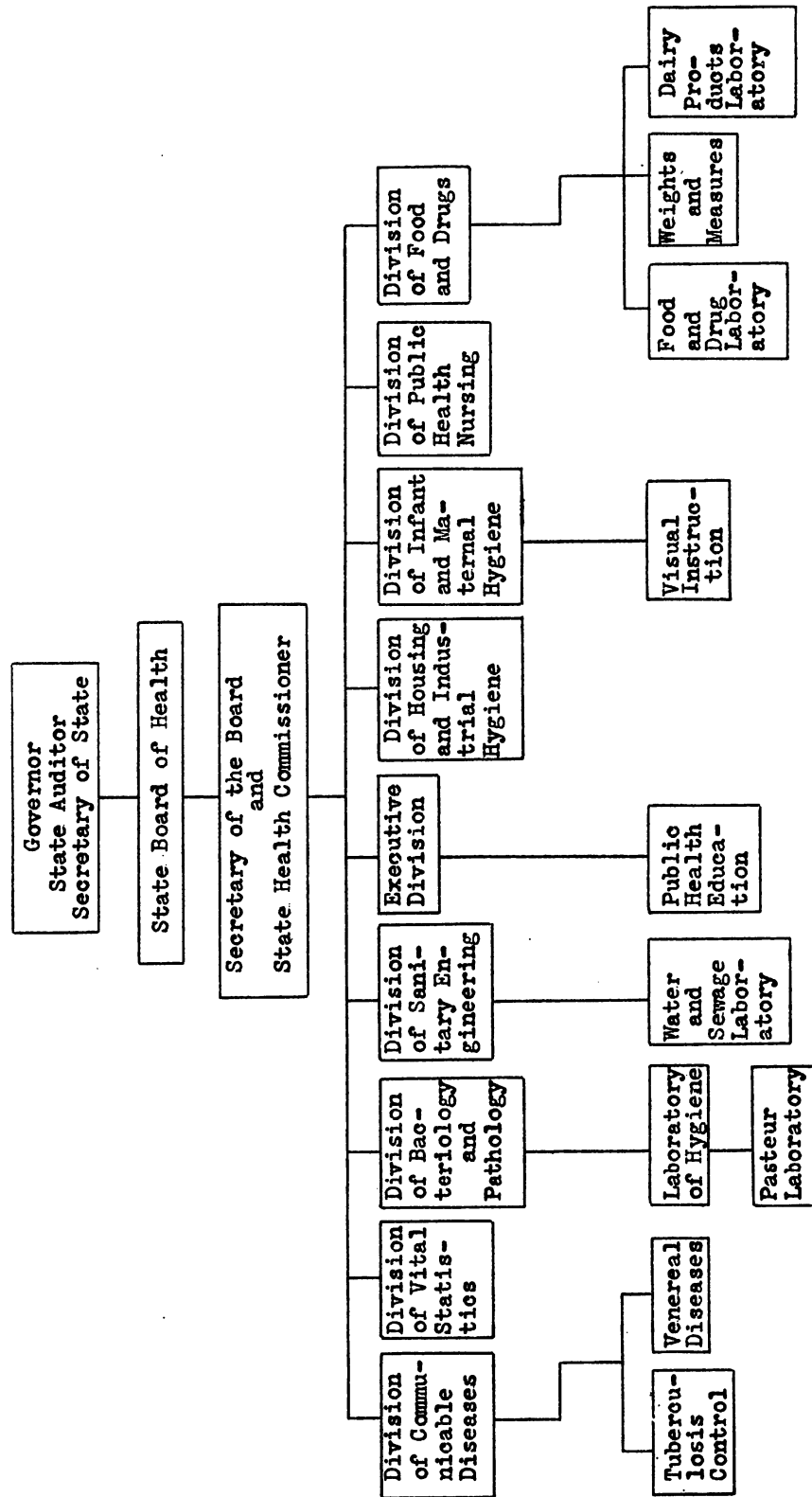


FIGURE 31

APPROPRIATIONS

The State legislature makes an appropriation to the State department of health. The appropriation is allotted by the commissioner to the various divisions of the department. The legislature meets in January of odd years. The fiscal year of the State department of health ends on September 30.

TABLE 123.—*Divisions of the State department of health in 1930*¹

INDIANA

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Executive division.....	\$36,000	² 12	\$5,500	\$18,700	\$24,200
Division of communicable diseases.....	25,000	³ 18	3,300	16,600	19,900
Division of vital statistics.....	14,000	7	3,200	6,480	9,680
Division of bacteriology and pathology.....	21,500	10	3,300	14,280	17,580
Division of sanitary engineering.....	30,000	11	3,300	14,400	17,700
Division of housing and industrial hygiene.....	6,000	2	3,300	1,500	4,800
Division of infant and maternal hygiene.....	45,000	18	3,700	29,300	33,000
Division of public health nursing.....	9,000	3	2,700	3,900	6,600
Division of food and drugs.....	60,000	⁴ 16	3,750	26,680	30,430
Weights and measures.....	20,000	⁵ 5	1,980	3,600	5,580

¹ Total appropriation, \$279,268; total appropriation exclusive of tuberculosis sanatoria funds, \$279,268; total appropriation from the State legislature \$266,500.

² This does not include four members on the board of health who receive \$10 per diem and necessary traveling expenses.

³ This includes fourteen directors of venereal-disease clinics, whose salaries are paid in part by the State department of health.

⁴ Includes the department of milk and dairy inspection.

⁵ Director of division of food and drugs is included.

EXECUTIVE DIVISION

Personnel.—In 1930 the personnel of the executive division consisted of the State health commissioner, a deputy State health officer, the director of visual instruction, an epidemiologist, two accountants, a secretary, a nurse, and four clerks.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel of the department.

Disbursement of funds.—Funds are disbursed by the State auditor on vouchers approved by the State health commissioner.

Purchases.—Each division orders its own supplies through the division of accounting and purchasing, which is a part of the executive division of the State department of health.

County health work.—There are no full-time county units in this State and no division for county health work. The State department of health cooperates with local health organizations and has the power to discharge officials for intemperance or failure to make reports.

Public health education.—The director of visual instruction of the executive division has direct supervision of the educational work of the State department of health, including the distribution of educational literature, use of films, etc.

Publicity.—Publicity measures are in charge of the State health commissioner.

Press service.—The State department of health sends articles and news items to the Associated Press, the United Press, International News Service, and more than 100 newspapers throughout the State of Indiana.

Bulletin.—A monthly bulletin is published, and in addition special pamphlets on various public health subjects are issued from time to time.

Equipment.—The State department of health owns 2 stereopticons, a strip-projector machine, approximately 1,000 slides, 42 motion-picture films, 6 motion-picture machines, and several portable exhibits.

Cooperation.—The State department of health and the State department of education cooperate in school hygiene and medical inspection of school children. The State department of health also cooperates with the State universities in health education, sanitary engineering, and the training of teachers in hygiene.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—In 1930 the staff of the division of communicable diseases consisted of a director, a State investigator, a secretary, a clerk and 14 directors of venereal-disease clinics.

Activities.—The purpose of the division of communicable diseases is to collect and record morbidity reports and to assist each community in the State to establish an epidemiological service commensurate with its needs.

Reporting of diseases.—Cases of communicable disease are reported weekly to the State department of health by the city, town and county health officers.

Quarantine.—Quarantine measures are enforced by the local health officers under the supervision of the State department of health.

Smallpox vaccination.—Vaccination of school children is not compulsory.

Emergency fund.—The State legislature provides the governor with an emergency fund of \$250,000. The apportioning of the emergency fund is left entirely to him.

Tuberculosis control.—Tuberculosis work is an activity of the division of communicable diseases. The State department of health cooperates with voluntary organizations in securing reports of cases, in supervision of the State sanatorium, and in educational work and laboratory service.

Sanatorium.—There is one State tuberculosis sanatorium with a capacity of 210 beds, conducted by a board of trustees and a superintendent. In addition there are seven county hospitals with a total

capacity of 981 beds. The appropriation in 1930 amounted to \$179,500 plus \$700 for each patient above a daily average of 170 patients each month.

Venereal-disease control.—Venereal-disease control is a part of the work of the division of communicable diseases.

Activities.—Practically all work in venereal-disease control, including that of reporting, isolation, detention, quarantine, and treatment, is carried on by the State department of health. Sixty-seven cities have ordinances governing venereal-disease control. The division of communicable diseases carries on its work through continuous educational effort and cooperates with clinics to provide prompt and effective treatment.

Clinics.—The law requires that all cases of venereal disease in State institutions shall be treated, and clinics are maintained at the State penal farm, the State reformatory, the women's prison, and the State girls' industrial school. Clinics for treatment are maintained in 14 cities. In 1929 there were 17 clinics under the supervision of the State department of health. Where the city health department cooperates in joint maintenance of these clinics, the State department of health pays the salary of the director of the clinic.

Treatments.—During 1929, 161,181 treatments, of which 31,443 were salvarsan, were administered to 5,735 patients. In the clinics a nominal charge of 50 cents is made for gonorrhea treatments and an average charge of \$1 for antisyphilitic treatments. Indigent patients are treated without cost, those financially able to pay a private physician are transferred immediately from the clinic to a reputable physician of their choice.

DIVISION OF VITAL STATISTICS

Personnel.—In 1930 the staff of the division of vital statistics consisted of a director, a secretary, and five clerks. Previous to 1924 the division was supported by the appropriation for the executive division and a separate account of expenditures was not kept.

Registration districts.—The primary registration districts of the State are the towns, cities, and counties.

Local registrars.—The town, city, and county health officers are the local registrars. They are paid a regular salary as health officers and do not receive fees as local registrars of vital statistics.

Registration area.—Indiana was admitted to the registration area for deaths in 1900 and to the registration area for births in 1917.

Reporting of deaths.—In 1929 more than 96 per cent of the deaths occurring in the State were reported, all by physicians. Deaths must be reported to the local registrar at once and to the State registrar by the 4th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 96 per cent of births occurring in the State were reported; of these, 95 per cent were reported by physicians and 5 per cent by midwives. Births must be reported to the local registrar within 36 hours and to the State registrar by the 4th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local boards of health provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the county coroner must be notified.

Burial permits.—Burial permits are necessary and are issued by the local health officers.

Licensing.—Physicians and midwives are licensed by the State board of medical registration and undertakers are licensed by the State embalming board.

DIVISION OF BACTERIOLOGY AND PATHOLOGY

Organization.—The division of bacteriology and pathology maintains two laboratories—the bacteriological laboratory and the Pasteur laboratory.

Personnel.—In 1930 the staff of this division consisted of a director, five bacteriologists, two clerks, and two assistants.

Branch laboratories.—There are no branch laboratories in the State.

Private laboratories.—The State department of health has no supervision over the private laboratories of the State but cooperates with them. When a patient is able to pay, the use of a private laboratory is urged.

Special laboratories.—The following special laboratories are maintained by the various divisions of the State department of health:

Water and sewage laboratory, division of sanitary engineering.

Food and drugs laboratory, division of food and drugs.

Dairy products laboratory, division of food and drugs.

Activities.—Bacteriological, serological, and pathological specimens are examined by the laboratories. In 1929, 115,697 examinations were made. The chief activities are Wassermann tests, examinations of tuberculosis sputa and diphtheria cultures, and analyses of milk and water. A summary of the diagnostic activities of the laboratory is given on pages 98–99.

Fees.—No fees are charged for laboratory services.

Biological products.—No biological products are manufactured by the laboratories. Diphtheria, tetanus, and scarlet-fever antitoxins and

rabies vaccine are furnished free to indigents through the division of bacteriology and pathology. Antirabic treatments are given in the Pasteur laboratory. The amount of antitoxins issued in 1929 is given on page 102.

Research.—The study of laboratory methods and the investigation of undulant fever were carried on by this division in 1929.

DIVISION OF SANITARY ENGINEERING

Personnel.—In 1930 the personnel of the division of sanitary engineering consisted of a director, four assistant engineers, four chemists, and two stenographers.

Activities.—It is the function of the division of sanitary engineering to supervise sanitary conditions throughout the State, particularly with respect to water supplies, sewage and other wastes. The State department of health has full legal authority to do whatever is reasonable and necessary in the performance of this function.

Public water supplies and sewage-disposal systems.—The department approves plans for public waterworks and for sewage-disposal plants, and has full sanitary supervision.

Water and sewage laboratory.—According to law all drinking waters sold in the State, bottled or otherwise, must be submitted to the water laboratory for analysis at least once each year. A fee of \$10 is charged and the money received is turned over to the general fund of the State. All water companies which maintain their own laboratories submit weekly reports to the division of sanitary engineering. The water and sewage laboratory examines practically all school water supplies in the State prior to the opening of each school year and makes systematic examinations of all public water supplies. During 1929, 12,825 water analyses were made by this laboratory.

Inspection.—Water-purification plants are inspected as often as it is considered necessary.

Bottled waters.—The State department of health exercises control over bottled waters through the act authorizing the department to protect public water supplies.

Ice industry.—No legislation has been passed governing the ice industry, but the State department of health has full supervision over the sanitation of ice supplies.

Camps and swimming pools.—Rules and regulations have been passed by the State department of health concerning the sanitation of tourist and summer camps and swimming pools.

Roadside water supplies.—As yet no legislation has been passed concerning roadside water supplies, but through its powers of supervision of all public water supplies, the State department of health has jurisdiction over this source.

DIVISION OF HOUSING AND INDUSTRIAL HYGIENE

The division of housing and industrial hygiene was established in 1921.

Personnel.—The staff in 1930 consisted of a director and a stenographer.

Activities.—Housing and industrial inspections are continually being made, usually with the cooperation of local health officials. The division is responsible for laws concerning building inspection in cities, and, under the sanitary dwelling house law, it is the responsibility of the division to see that orders are issued by any city with regard to the repair or vacating of dwelling houses unfit for human habitation. In addition the division is responsible for the abatement of nuisances and for sanitary conditions in industry.

DIVISION OF INFANT AND MATERNAL HYGIENE

Appropriations.—The establishment of the child-hygiene division of the State board of health was authorized by the 1919 session of the Indiana legislature with an annual appropriation of \$10,000. The 1921 session granted an additional appropriation of \$5,000 for the work of that year and increased the annual amount for the next two years to \$20,000. In July, 1922, when the Federal maternity and infancy act was accepted by the governor, the remainder of the appropriation for the fiscal year was matched with Federal funds. The record of the work accomplished before and after Federal aid became available indicates that the so-called Sheppard-Towner law has been of real assistance in improving conditions affecting the health of mothers and babies.

Personnel.—In 1930 the personnel of the division of infant and maternal hygiene consisted of a director, four physicians, four nurses, four exhibit directors, a secretary, three stenographers, and a statistician.

Maternal and infant hygiene.—Classes for instruction in maternal and infant care were organized in counties by townships in March, 1924. A major activity of the division is the mothers' classes held in many of the counties.

Prenatal clinics.—As yet no prenatal clinics have been organized. Such work is carried on by local health organizations.

Midwifery.—Instruction is given to midwives in connection with routine educational work.

Ophthalmia neonatorum.—Physicians and midwives are required to use all necessary precautions in caring for the eyes of the new born.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed by the State board of charities.

Baby clinics.—As yet baby clinics have not been carried on directly by the State department of health. In 1929, 12,025 babies and pre-

school children were examined at the child-health centers conducted by local health organizations.

Child-health centers.—Child-health centers have been started in many of the towns, and county-wide health conferences have been held in all the counties. Local cooperation has been given in organizing and establishing the work.

Visual instruction.—Visual education has been emphasized as a special activity of the division of child hygiene. A large number of educational charts and posters, based on statistics and results of the work in the State, have been shown.

School hygiene.—The school boards and boards of education permit medical examinations of school children.

The State department of health conducts demonstrations in the medical inspection of school children in cooperation with school authorities, local physicians and dentists. The work is financed by the local boards of health, and supervised through the part-time service of employees of the division of infant and maternal hygiene and the division of public health nursing.

DIVISION OF PUBLIC HEALTH NURSING

Authorization.—There is no specific law authorizing the employment of public health nurses by county or city health departments but this practice is based on an opinion of the attorney general to the effect that the authority of the health officer to do "whatever is in his opinion reasonable and necessary for the health of the community" is broad enough to permit the employment of public health nurses. Formerly the work of this division was correlated with the work of other divisions.

Organization.—In 1924 a separate division was organized. The division acts in a purely advisory capacity to local organizations. It renders a very real service.

Personnel.—In 1930 the personnel of the division of public-health nursing consisted of a director, an assistant director, and a stenographer.

Activities.—The purpose of the division is fourfold: To aid in the organization and standardization of public-health nursing services throughout the State; to help nurses to find positions and communities to find nurses; to serve as a clearinghouse for information; to advise nurses in the field.

Eligibility requirements.—To be approved by the State department of health all nurses must be registered graduate nurses and must have had four months' practical and theoretical training in public-health nursing or a year's satisfactory experience under expert nursing supervision.

School nurses.—School nurses must be registered graduate nurses, and must have had special preparation for school health work.

Number of public-health nurses.—Thirty-six of the ninety-two counties have county public-health nurses.

DIVISION OF FOOD AND DRUGS

Personnel.—In 1930 the staff of the division of food and drugs consisted of a director, five chemists, eight inspectors, a secretary, and a clerk.

Activities.—The functions of the division of food and drugs are to protect the consumer against adulterated or misbranded foods or foods prepared under insanitary conditions, and to supervise the milk supplies of the State.

Food handlers.—The examination of food handlers is required by law.

Inspection of food.—The inspection of foods and drugs is required by law. Slaughter houses are inspected and the laws concerning cold storage are enforced by this division.

Shellfish.—The sanitation of areas where shellfish are gathered is not a problem in this State.

Food and drugs laboratory.—The food and drugs laboratory is maintained by this division. During 1929, 842 examinations of food and drugs were made in this laboratory.

Milk laws.—Pasteurization of milk is required except where herds are annually tuberculin tested. The tuberculin testing of cattle is done by the State veterinarian. City ordinances control the licensing of dairies, but they are inspected by the State department of health. Few cities in Indiana have both laboratory and field control of their milk supplies; several have field control only.

Dairy products laboratory.—The dairy products laboratory is maintained for the benefit of cities that cooperate in supervising their milk supplies. Some local authority is responsible for the collection and submission of samples for examination. During 1929, 7,768 milk analyses were made by this laboratory.

WEIGHTS AND MEASURES

Personnel.—By a law passed in 1911 the State food and drug commissioner is also the State commissioner of weights and measures. He was assisted in 1930 by a stenographer and three inspectors.

Activities.—The law requires the testing of all State institution and mine scales once a year; the immediate testing of mine scales when their correctness is in dispute; and the testing, as made necessary, of all scales, weights, and measures in the State. This law was later amended and finally superseded by the weights and measures act in 1925. Inspectors of weights and measures, both State and local, are

police officers charged with the detection and punishment of violations of the law. The State department of health cooperates in every way possible with local inspectors of weights and measures, who, under the law, are also deputy State inspectors.

TABLE 124.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

INDIANA

Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$64,500	\$73,500	\$69,500	\$79,500	¹ \$111,934	¹ \$137,949
State legislative budget.....	64,500	73,500	69,500	79,500	109,866	107,999
Executive division.....	24,500	33,500	29,500	34,500	33,000	33,000
Division of bacteriology and pathology.....	10,000	10,000	10,000	10,000	10,000	12,000
Division of sanitary engineering.....	5,000	5,000	5,000	5,000	5,000	5,000
Division of food and drugs.....	20,000	20,000	20,000	20,000	20,000	25,000
Weights and measures.....	5,000	5,000	5,000	10,000	10,000	10,000
Venereal diseases.....					¹ 31,434	¹ 32,949
Division of tuberculosis control.....					2,500	10,000
Division of infant and maternal hygiene.....						10,000

Division	1921	1922	1923	1924	1925
Total budget.....	¹ \$151,607	^{1 2} \$206,275	^{1 2} \$198,695	^{1 2} \$205,237	^{1 2} \$203,193
State legislative budget.....	128,502	173,300	162,514	168,450	176,750
Executive division.....	33,500	34,500	34,000	30,000	30,000
Division of bacteriology and pathology.....	12,000	12,000	12,000	13,500	13,500
Division of sanitary engineering.....	7,100	7,815	6,502	5,765	10,000
Division of food and drugs.....	30,000	30,000	30,000	30,000	30,000
Weights and measures.....	10,000	10,000	10,000	10,000	10,000
Venereal diseases.....	¹ 34,007	¹ 46,759	¹ 46,992	¹ 33,272	¹ 30,693
Division of tuberculosis control.....	10,000	10,000	10,000	(⁴)	(⁴)
Division of infant and maternal hygiene.....	15,000	² 40,700	² 45,000	² 47,500	² 46,500
Division of housing and industrial hygiene.....		15,000	4,200	7,500	7,500
Division of communicable diseases.....				10,000	7,500
Division of vital statistics.....				10,000	10,000
Division of public-health nursing.....				7,200	7,500

Division	1926	1927	1928	1929	1930
Total budget.....	² \$216,432	² \$222,991	² \$225,397	² \$243,421	\$279,268
State legislative budget.....	191,432	197,991	200,397	218,421	266,500
Executive division.....	30,000	30,000	28,500	30,000	36,000
Division of bacteriology and pathology.....	15,000	15,000	21,000	19,500	21,500
Division of sanitary engineering.....	10,000	10,000	14,000	19,800	30,000
Division of food and drugs.....	30,000	30,000	33,500	36,000	60,000
Weights and measures.....	10,000	10,000	11,500	13,500	20,000
Venereal diseases.....	(³)				
Division of infant and maternal hygiene.....	² 45,000	² 45,000	² 46,000	² 56,500	45,000
Division of housing and industrial hygiene.....	7,500	7,500	5,500	5,500	6,000
Division of communicable diseases.....	35,500	35,500	21,500	23,500	25,000
Division of vital statistics.....	10,000	10,000	12,000	12,000	14,000
Division of public-health nursing.....	8,000	8,000	8,000	8,000	9,000
Hydrophobia ⁴	12,664	19,223	17,129	16,353	10,000
Leprosy.....	2,768	2,768	2,768	2,768	2,768

¹ Federal Government funds included. (See Table 125.)

² U. S. Children's Bureau funds included. (See Table 125.)

³ After 1926 included under the division of communicable diseases.

⁴ Discontinued.

⁵ Conducted in connection with the division of bacteriology and pathology.

TABLE 125.—Total appropriations for State department of health, by years

INDIANA

Year	Total appropriation	Source of funds and amounts			
		State legislature	United States		Fees
			Public Health Service	Children's Bureau	
1915.....	\$64,500	\$64,500	-----	-----	-----
1916.....	73,500	73,000	-----	-----	-----
1917.....	69,500	69,500	-----	-----	-----
1918.....	79,500	79,500	-----	-----	-----
1919.....	111,934	109,866	\$2,068	-----	-----
1920.....	137,949	107,999	29,950	-----	-----
1921.....	151,607	128,502	16,004	-----	\$7,100
1922.....	206,275	173,300	4,459	\$20,700	7,815
1923.....	198,695	162,514	4,678	25,000	6,502
1924.....	205,237	168,450	2,772	26,250	7,765
1925.....	203,193	176,750	693	25,750	-----
1926.....	216,432	191,432	-----	25,000	5,272
1927.....	222,991	197,991	-----	25,000	4,106
1928.....	225,397	200,397	-----	25,000	5,842
1929.....	243,421	218,421	-----	25,000	4,840
1930.....	279,268	266,500	-----	-----	¹ 15,000

¹ Approximately \$10,000 of this amount may be used by the State department of health.

IOWA

STATE BOARD OF HEALTH

Organization.—The State board of health consists of the State commissioner of health, the members of the executive council, and five members appointed by the governor. The executive council is composed of five members chosen by State elections. The five members of the board appointed by the governor must be health officers, and not more than one member may be appointed from each congressional district.

Term of office and compensation.—The members appointed by the governor serve for two years. The terms of all members may expire at the same time inasmuch as the office terminates according to the time of appointment. No compensation for service is given, but necessary traveling expenses are paid.

Meetings.—Meetings of the State board of health are held semi-annually, and special meetings may be called by the State health commissioner or by the governor.

EXECUTIVE OFFICER

Legal qualifications.—The State commissioner of health is appointed by the governor from outside the membership of the State board of health. He must be a physician specially trained in public-health work and must give his entire time to his duties as commissioner.

Term of office and compensation.—The executive officer serves for a period of four years. He receives a yearly salary of \$5,000 and all necessary traveling expenses.

Iowa - Organization of the State Department of Health in 1930

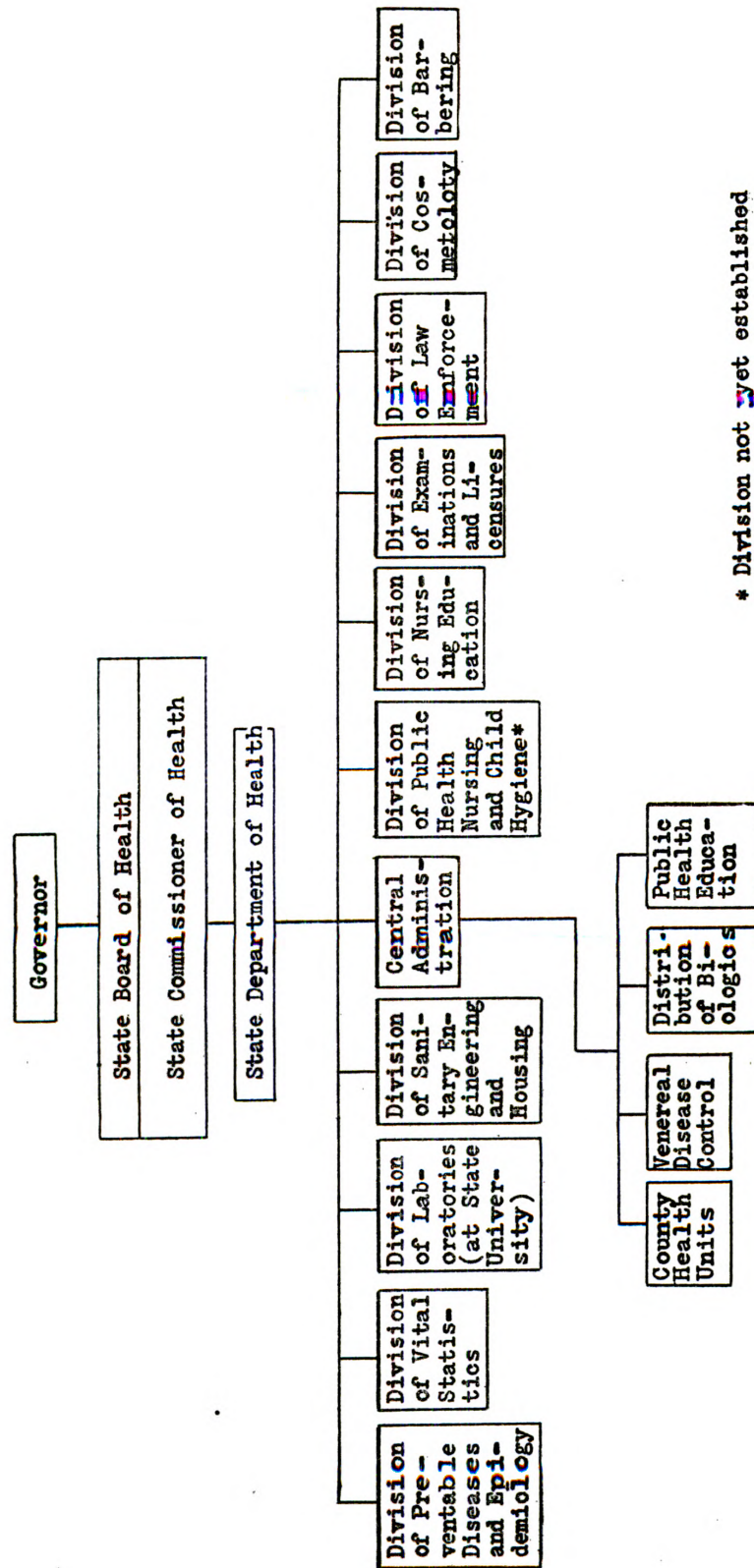


FIGURE 32

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State board of health acts in an advisory capacity to the State department of health. The State department of health has no judicial power; it has the authority to make and enforce rules and regulations concerning sanitation, including the sanitation of barber shops and beauty parlors, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, and violation of the medical practice law. Control of milk supplies and pure foods is a function of the State department of agriculture. Licensing and supervision of midwives are functions of the State board of control.

APPROPRIATIONS

The State legislature makes an annual appropriation by divisions for the State department of health. The legislature meets in January of odd years. The fiscal year of the State health department ends June 30.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the State commissioner of health, the deputy commissioner of health, a public health lecturer, a director of examinations, an accountant, a secretary, and six clerks.

TABLE 126.—*Divisions of the State department of health in 1930*¹
IOWA

Divisions ²	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$42,400	12	\$5,000	\$26,000	\$31,000
Division of preventable diseases and epidemiology.....	5,400	1	4,000	-----	4,000
Division of vital statistics.....	8,000	³ 6	(⁴)	7,500	7,500
Division of sanitary engineering and housing.....	22,525	5	3,600	10,400	14,000
Division of nursing education.....	⁵ 3,000	1	3,000	-----	3,000
Division of examinations and licensures.....	2,400	1	2,400	-----	2,400
Division of law enforcement.....	⁶ 2,700	1	2,700	-----	2,700
Division of cosmetology.....	(⁶)	3	-----	-----	-----
Division of barbering.....	(⁶)	4	-----	-----	-----

¹ Total appropriation, \$84,725; total appropriation exclusive of tuberculosis sanatoria funds, \$84,725; State legislative appropriation, \$81,525.

² Appropriations for the division of laboratories and the division of public health laboratories and child hygiene are made directly to the State university.

³ State health commissioner is included.

⁴ State health commissioner is the State registrar.

⁵ Plus necessary traveling expenses.

⁶ Necessary expenses not to exceed fees received.

Civil Service.—The employees of the State department of health are not civil-service appointees. A change in State administration affects the tenure of personnel of the department.

Activities.—The activities of the department of health are somewhat limited as compared with those of other States. Through the State university the board of education carries on the activities of

maternity and child hygiene and some epidemiological work. Consequently, the State department of health functions mainly through the divisions of vital statistics, epidemiology, sanitary engineering, laboratories, examination and licensures, law enforcement, cosmetology, barbering, and nursing education. A division of public health nursing and child hygiene has been established but is not yet organized. Through the deputy commissioner, central administration has direct charge of the establishment of county health units, the control of venereal disease, the distribution of biologics, and the inauguration of a state-wide diphtheria campaign.

Disbursement of funds.—Funds are disbursed by the State treasurer on recommendation of the audit board.

Purchases.—Purchases are made by the executive council of the State board of health.

Local health organizations.—Two municipalities employ the full-time services of health officers; other municipalities have part-time health officers only. Twelve counties had county-wide nursing services in 1929. The State department of health exercises general supervision over the local health organizations. Cases of reportable disease must be reported by the local organizations. No regular order of inspection is followed, but in emergencies or special circumstances the local organizations are visited and advised. A permissive county health unit law was enacted by the 1929 legislature and two full-time county health departments had been organized by the close of 1930.

Venereal disease control.—One State clinic for venereal disease is under the control of the State university and nine private clinics have been established by cities and counties. No clinics for venereal diseases are directly under the supervision of the State department of health. The cessation of a grant of Federal funds for this work necessitated the limiting of activities. Aid is given in the establishment of local clinics and the material for treatment is made available at the lowest cost or is free.

Public-health education.—The educational activities of the State department of health are under the control of the State health commissioner.

Bulletins.—A quarterly bulletin is issued. During 1929 nine special bulletins were published.

Press service.—The State department of health has no regular press service.

Lectures.—Lectures are delivered by members of the State department of health, and radio talks are given occasionally.

Equipment.—The State department of health owns 3 stereopticons, 500 slides, 23 motion-picture films, and 1 motion-picture projector.

Cooperation.—The State departments of health and of education cooperate in carrying on their programs.

DIVISION OF PREVENTABLE DISEASES AND EPIDEMIOLOGY

Personnel.—An epidemiologist was added to the staff of the State department of health in 1929.

Activities.—At present the activities of this division are mainly confined to teaching. Occasionally epidemiological investigations are made.

Reporting of diseases.—The local health officers report cases of communicable diseases to the State department of health within 24 hours.

Quarantine.—The local boards of health control quarantine measures.

Smallpox vaccination.—Smallpox vaccination for school children is not compulsory, but is advised.

Emergency fund.—No emergency fund for use in case of an epidemic is provided.

Tuberculosis control.—Some work in the control of tuberculosis is carried on, but no clinics or dispensaries are maintained by this division.

Sanatoria.—One State tuberculosis sanatorium with a capacity of 315 beds is maintained by an appropriation made to the State board of control. The amount of this appropriation in 1930 was \$38,000. There are also 4 county sanatoria with a total capacity of 300 beds.

DIVISION OF VITAL STATISTICS

Personnel.—The personnel of the division of vital statistics in 1930 consisted of the State health commissioner (who is ex officio the State registrar), the assistant State registrar, and four clerks.

Registration districts.—Each city, incorporated town, and township constitutes a primary registration district in Iowa.

Local registrars.—Local registrars are chosen by the county boards of supervisors and are paid a fee by the county treasurers of 25 cents for each record issued. In cities of more than 20,000 population the local registrars are appointed by the local boards of health.

Registration area.—Iowa was admitted to the registration area for deaths in 1923 and to the registration area for births in 1924.

Reporting of deaths.—The percentage of deaths occurring in the State in 1929 was not recorded. Deaths must be reported to the local registrars before burial and to the State registrar by the 10th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—The percentage of births reported in 1929 was not recorded. Births must be reported to the local registrars within 10 days and to the State registrar by the 5th of each month.

Stillbirths.—Stillbirths are recorded as both births and deaths.

Blanks and postage.—The State department of health furnishes the postage and the blanks for recording the returns.

Unlawful death.—In case death is thought to be caused by unlawful means the matter is referred to the county coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians and embalmers are licensed by the State department of health. Undertakers and midwives are not licensed.

DIVISION OF LABORATORIES

Organization.—The State public-health laboratories are located at the State university. The State legislature makes an appropriation directly to the university for the maintenance of the laboratories.

Branch laboratories.—There are 20 branch laboratories in the State. They receive no financial aid from the State, but support themselves by fees.

Private laboratories.—The State department of health has no supervision over the private laboratories in the State but specifies the technique which will be recognized.

Activities.—During 1929, 113,573 examinations were made by the division of laboratories. The chief examinations are Wassermann tests, examinations of diphtheria cultures, tuberculosis sputa, and water analyses. A summary of diagnostic activities is given on pages 98—99.

Fees.—Fees are charged for vaccines, urinalyses, and blood counts.

Biological products.—No biological products are manufactured by the division of laboratories. The central office issues biologicals at the State-contract price.

DIVISION OF SANITARY ENGINEERING AND HOUSING

The State board of health is responsible for the prevention of stream pollution, and the division of sanitary engineering was commissioned on October 28, 1924, to carry on this work.

Personnel.—In 1930 the personnel of the division of sanitary engineering consisted of a chief sanitary engineer and four assistant engineers.

Public water supplies.—The State department of health has the authority to inspect and supervise the public water supplies of the State.

Analyses.—All cities and towns securing their public water supply from wells are required to send samples twice a year for analysis. Surface-water supplies are analyzed once a month.

Inspection.—Water-purification plants are inspected annually and upon request.

Bottled waters.—The control of bottled water under the pure food act is administered by the State department of agriculture.

Ice industry.—The sale of impure ice for cooling drinks is prohibited by the State department of health.

Sewage-disposal systems.—The State department of health inspects sewerage systems, approves all plans for and directs the method of installation and operation of sewage-disposal systems.

Impounded waters.—Cities have the right to buy land in order to create an impounded reservoir or to protect the water supplies for 5 miles in all directions from their source.

Camps.—The State department of health has made rules and regulations governing the disposal of sewage and garbage and the protection of the drinking-water supplies in tourist camps.

Swimming pools.—Legislation concerning the sanitation of swimming pools was passed in 1927.

Roadside water supplies.—No legislation has been passed concerning roadside water supplies, but they are examined at regular intervals.

DIVISION OF PUBLIC-HEALTH NURSING

Organization.—The employment of public-health nurses was permitted by law in 1924 and the division of public-health nursing was established in 1926. From 1922 to 1930 a representative of the Iowa Tuberculosis Association assumed the title of director of public-health nursing and supervised all nursing activities in the State. Her salary was paid entirely by the association, and she served in an advisory capacity only.

Eligibility requirements.—A public-health nurse must be a graduate registered nurse with special training in public-health work.

Number of nurses.—In 1929 there were 104 agencies employing 180 public-health nurses. One hundred and twenty-five of these nurses were employed in cities with a population of 10,000 or over. In addition, 12 counties had county-wide nursing service.

Maternal and child hygiene activities.—Maternal, infant, and child hygiene activities are relegated to the child-welfare research station at the State university under the State board of education and are not functions of the State department of health.

Lying-in hospitals and orphanages.—Maternity hospitals are not licensed. Orphanages are licensed by the child-welfare division of the State board of control.

Ophthalmia neonatorum.—The use of a prophylactic in the eyes of the newborn is made compulsory under State laws.

DIVISION OF NURSING EDUCATION

Personnel.—The work of the division of nursing education is under the supervision of a graduate trained nurse. She is also the secretary of the examining board and of the State association of nurses.

Activities.—This division regulates the curricula and standing of nurses and enforces the standards of nursing education in hospitals with training schools for nurses.

DIVISION OF EXAMINATION AND LICENSURES

Personnel.—The division of examination and licensures is under the supervision of a person "not licensed to practice any of the professions for which a license must be obtained from the health department to practice the same in this State."

Activities.—It is the function of this division to license physicians, nurses, dentists, osteopaths, barbers, cosmetologists, pediatricists, optometrists, and chiropractors passed by the State examining boards.

DIVISION OF LAW ENFORCEMENT

Personnel.—The work of the division of law enforcement is under the jurisdiction of a full-time investigator, who is an attorney.

Activities.—All licensees are investigated for irregularities that may come to the attention of the department from time to time.

DIVISION OF COSMETOLOGY

Personnel.—The work of inspecting cosmetology shops is under the supervision of a secretary and two field inspectors.

Activities.—Investigations are made to enforce the rules of the State department of health pertaining to the sanitation of such shops.

DIVISION OF BARBERING

Personnel.—The division of barbering is under the supervision of the barber board and four inspectors.

Activities.—It is the duty of the inspectors to make sanitary inspections of barber shops.

TABLE 127.—Total budget, State legislative budget for health work and budgets by divisions, by years

IOWA						
Divisions	1915	1916	1917	1918	1919	1920
Total budget.....	\$33,748	\$33,748	\$33,748	\$33,748	\$37,748	\$37,748
State legislative budget.....	33,748	33,748	33,748	33,748	33,748	33,748
Central administration.....	28,748	25,748	25,748	21,748	21,748	17,748
Division of sanitary engineering and housing.....	5,000	5,000	5,000	5,000	5,000	5,000
Division of laboratories.....		3,000	3,000	4,000	4,000	8,000
Division of vital statistics.....				3,000	3,000	3,000

Divisions	1921	1922	1923	1924	1925
Total budget.....	\$46,000	\$66,300	\$63,624	\$70,580	\$79,478
State legislative budget.....	42,000	42,000	42,000	42,000	61,410
Central administration.....	19,000	15,500	15,500	15,722	26,340
Division of sanitary engineering and housing.....	5,000	5,000	5,000	5,000	13,900
Division of laboratories.....	8,000	11,500	11,500	11,278	11,277
Division of vital statistics.....	10,000	10,000	10,000	10,000	6,300
Division of public health nursing.....					3,600

¹ U. S. Public Health Service funds included. (See Table 128.)

² Local funds included. (See Table 128.)

³ Rockefeller Foundation funds included. (See Table 128.)

⁴ Federal venereal disease appropriation included. See Table 128.

TABLE 127.—*Total budget, State legislative budget for health work and budgets by divisions, by years—Continued*

IOWA—Continued

Divisions	1926	1927	1928	1929	1930
Total budget.....	\$87,130	\$63,715	\$63,500	\$86,075	\$84,725
State legislative budget.....	61,410	57,600	57,600	81,525	81,525
Central administration.....	28,340	34,900	34,900	42,400	42,400
Division of sanitary engineering and housing.....	13,900	15,900	15,900	22,525	22,525
Division of laboratories.....	11,277	(⁶)	(⁶)	(⁶)	(⁶)
Division of vital statistics.....	6,300	6,800	6,800	8,000	8,000
Division of public health nursing.....	3,600				
Division of preventable diseases and epidemiology.....				5,400	5,400
Division of nursing education.....				3,000	3,000
Division of examinations and licensures.....				2,400	2,400
Division of law enforcement.....				2,700	2,700
Division of cosmetology.....			(⁶)	(⁶)	(⁶)
Division of barbering.....			(⁶)	(⁶)	(⁶)

³ Rockefeller Foundation funds included. (See Table 128.)⁵ Necessary expenses not to exceed fees received.⁶ Appropriated to the State university.TABLE 128.—*Total appropriations for State department of health, by years*

IOWA

Year	Total appropriation	Source of funds and amounts				
		State legislature	U. S. Public Health Service	County	Federal venereal disease appropriation	Rockefeller Foundation
1915.....	\$33,748	\$33,748				
1916.....	33,748	33,748				
1917.....	33,748	33,748				
1918.....	33,748	33,748				
1919.....	37,748	33,748			\$4,000	
1920.....	37,748	33,748			4,000	
1921.....	46,000	42,000			4,000	
1922.....	66,300	42,000	\$300	\$20,000	4,000	
1923.....	63,624	42,000	300	21,143		\$151
1924.....	70,580	42,000	300	25,780		2,500
1925.....	79,478	61,410	300	15,789		1,979
1926.....	67,310	61,410				5,900
1927.....	63,715	57,600				5,575
1928.....	63,500	57,600				5,900
1929.....	86,075	81,525				4,550
1930.....	84,725	81,525				3,200

KANSAS

STATE BOARD OF HEALTH

Organization.—The governor, with the consent of the senate, appoints from the different parts of the State nine physicians and one lay person, preferably an attorney, to constitute a State board of health. The nine physicians of the State board of health must be men of good moral character and temperate habits, distinguished for their devotion to the study of medicine and allied sciences. Each must be a graduate of a reputable medical college and must have had not less than seven years' continuous practice in his profession.

Term of office and compensation.—The members of the board serve for three years and may be reappointed. The terms of three members

Kansas - Organization of the State Department of Health in 1930

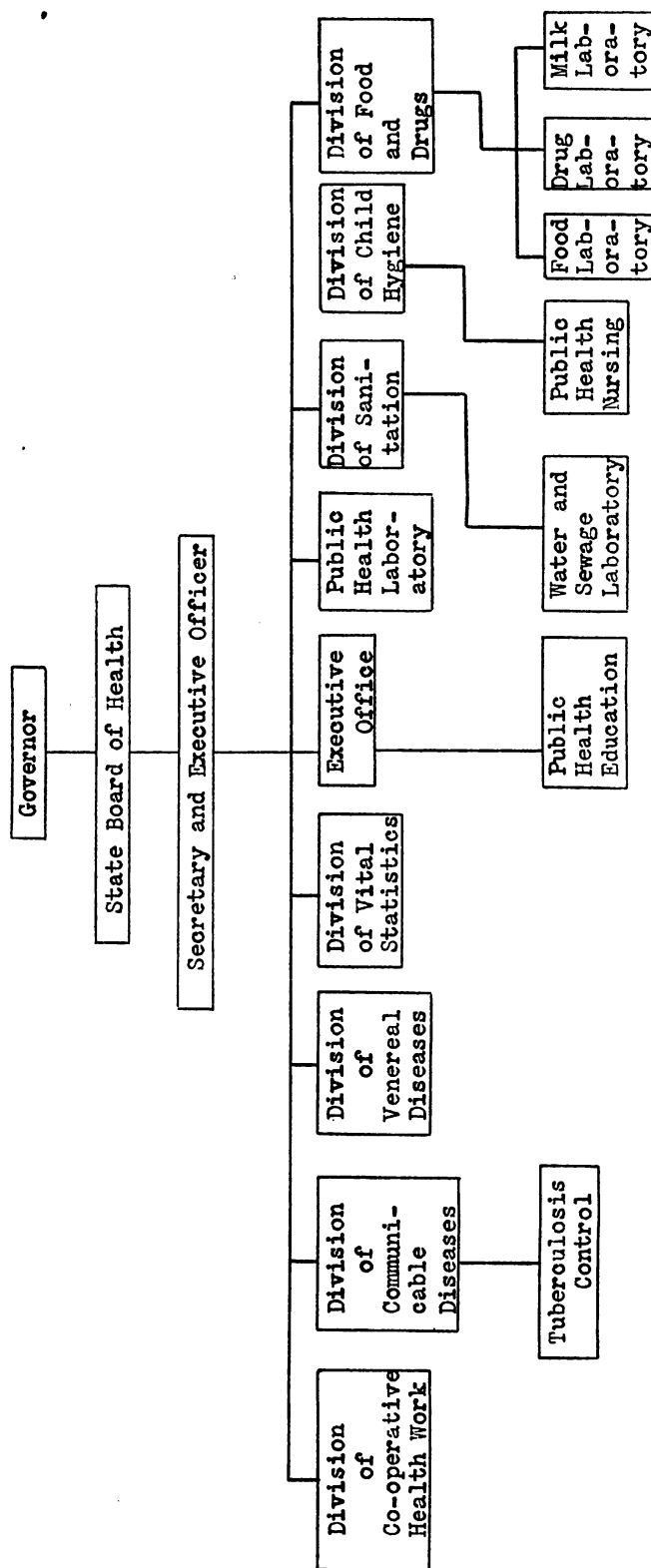


FIGURE 33

expire at the end of each of the first two years; the terms of the remaining four members expire the third year. The members receive a compensation of \$5 a day and their traveling expenses when they are actually engaged in the duties of the office.

Meetings.—Four regular meetings are held each year. Special meetings may be called by the president or may be provided for by the board.

EXECUTIVE OFFICER

Legal qualifications.—The State board of health elects a secretary from or outside its membership, who becomes ex officio the executive officer, but not a member of the board. The secretary and executive officer must be a graduate of a reputable medical college and a resident of the State for at least seven years. He must subscribe to the oath of office and execute a bond of \$5,000 with sureties to the State.

Term of office and compensation.—The executive officer serves during the pleasure of the board. He receives a compensation of \$4,000 and necessary traveling expenses. From 1915 to 1919 the secretary of the board was also the dean of the medical school and did not draw a salary as secretary.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial power. It is authorized to make and enforce rules and regulations concerning sanitation, water pollution, sewage disposal, food adulteration, nuisances, communicable diseases, and quarantine. It cooperates with the State dairy commission in enforcement of the milk laws. The enforcement of the medical practice law is a function of the board of medical examination and registration. Under the vital statistics law the State board of health requires the registration of midwives but does not have the power to make rules and regulations concerning midwifery.

APPROPRIATIONS

Annual appropriations are made by the State legislature for the various divisions of the State department of health. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 129.—Divisions of the State department of health in 1930 ¹

KANSAS

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Executive office.....	\$7,500	2	\$4,000	\$1,500	\$5,500
Division of cooperative health work.....	23,500	2	² 2,600	⁽³⁾	2,600
Division of communicable diseases.....	10,700	2	3,300	1,200	4,500
Division of venereal diseases.....	1,050	⁽⁴⁾	⁽⁴⁾		
Division of vital statistics.....	18,000	⁵ 10	2,400	11,100	13,500
Public health laboratory.....	10,450	⁶	⁶ 2,400	5,520	7,920
Division of sanitation.....	25,106	⁸	2,700	14,110	16,810
Division of child hygiene.....	10,000	⁵	² 2,500	4,800	7,300
Division of food and drugs.....	15,400	6	2,000	8,400	10,400

¹ Total appropriation, \$122,956; total appropriation exclusive of tuberculosis sanatoria funds, \$122,956
State legislative appropriation, \$65,350; State legislative appropriation plus fees, \$108,456.

Director of division of cooperative health work is also the director of the division of child hygiene.

² Stenographer for division of cooperative health work is also stenographer for division of child hygiene.

³ Executive officer is the director of the division.

⁴ Officials included whose time is devoted to more than one activity.

⁵ Only \$900 of this amount is paid from the budget, the balance is paid by various State hospitals and is not included in the budget.

EXECUTIVE OFFICE

Personnel.—The staff of the executive office in 1930 consisted of the executive officer and a secretary.

Civil service.—The employees of the State department of health are not civil service appointees. Legally a change in State administration does not affect the tenure of personnel. In 1923 various changes were made, however.

Disbursement of funds.—State funds are disbursed by the State treasurer upon the approval of the executive officer and the State auditor.

Purchases.—General supplies are secured through the executive office. Other articles needed in the department are purchased through requisition on the office of the secretary of state.

Public health education.—Publicity and educational activities are carried on by the executive officer.

Bulletins.—The State department of health does not publish a regular bulletin. A weekly morbidity report is issued and sent to each health officer. Special pamphlets on public health subjects are issued from to time.

Press service.—The department of health has no regular press service, but the Associated Press handles many articles given them by the department for publication.

Equipment.—The State department of health owns a stereopticon, about 500 slides, 24 motion-picture films, 2 portable moving-picture machines, and a projectoscope.

Cooperation.—The State department of health and the State department of education cooperate in carrying on their respective programs.

DIVISION OF COOPERATIVE HEALTH WORK

Personnel.—Previous to 1925 local health work was directed by the epidemiologist of the division of communicable diseases and salaries were paid from the appropriation for that division. In 1925, a separate division was created, and the director of the division of child hygiene acts also as director of this new division. He was assisted in 1930 by a secretary who likewise filled the same position in the division of child hygiene.

Full-time organizations.—In 1927 the legislature enacted a permissive county health law. At the close of 1930, there were 12 full-time county health organizations. In addition, Kansas City, Wichita, and Topeka have full-time health departments.

Special tax.—A law passed in 1929 authorizes counties to levy a tax upon all taxable property not in excess of one-half mill on the dollar. The proceeds from this tax are to be placed in a separate fund designated as the "county health fund" and are to be used to pay the salaries of the county health officer and any additional personnel engaged in county health work.

Supervision.—The State department of health acts in a supervisory and advisory capacity toward the local health organizations. When local health officers neglect to isolate and properly quarantine infectious diseases, the State board of health or its executive officer may act to quarantine the community. The State department of health may remove a health officer for failure or neglect to perform the duties of his office and may itself take charge of the work at the expense of the local government.

TABLE 130.—Data on full-time counties operating throughout 1929

KANSAS

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel			
								Health officers	Inspectors	Nurses	Clerks
Cherokee.....	1919	31,584	\$8,220	\$0.26	\$33,783,000	\$0.0002	-----	1	---	1	1
Geary.....	1919	14,149	6,980	.49	22,319,000	.0003	-----	1	---	1	1
Marion.....	1920	20,943	4,000	.19	63,319,000	.0001	-----	1	---	1	1
Butler.....	1920	36,669	17,000	.46	112,164,000	.0002	El Dorado (10,305)	1	2	4	1
Ottawa.....	1922	9,913	7,500	.76	30,165,000	.0002	-----	1	---	1	1
Lyon.....	1923	28,872	10,780	.37	50,627,000	.0002	Emporia (13,442)	1	---	2	1
Greenwood.....	1928	18,855	8,300	.44	39,978,000	.0002	-----	1	---	1	1
Shawnee.....	1928	84,144	8,070	.10	113,120,000	.0001	Topeka (62,604)	1	---	1	1
Brown.....	1928	20,589	7,800	.38	51,693,000	.0002	-----	1	---	1	1
Total.....	-----	265,718	78,630	.30	516,877,000	.0002	-----	9	2	12	8

DIVISION OF COMMUNICABLE DISEASES

Personnel.—The personnel of the division of communicable diseases in 1930 consisted of an epidemiologist and a clerk.

Activities.—The activities of this department are numerous. The control of communicable diseases, the tabulation of morbidity reports, the investigation of epidemics, the distribution of biologicals, and the inauguration of campaigns for immunization against smallpox, typhoid, and diphtheria are all functions of this division.

Reporting of cases.—Local health officers report cases of communicable disease to the State department of health each week.

Quarantine.—Local health officers have control over quarantine measures.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children, but the local health officer may prohibit attendance at school if necessary.

Emergency fund.—No emergency fund for use in case of a severe or extensive outbreak of disease is provided.

Tuberculosis control.—Tuberculosis control work is a function of the division of communicable diseases. For a number of years \$10,000 was appropriated annually by the legislature for the study of tuberculosis control. Under this program the number of cases reported was double the number previously reported. At present the State department of health is without the funds necessary to establish any adequate educational program or to do any preventive work through the State.

Tuberculosis activities.—The State department of health makes microscopical examinations and distributes literature concerning precautions to be taken in the care of patients.

Sanatorium.—The State sanatorium with a capacity of 196 beds is under the supervision of the State board of administration. Each county pays \$1 per day at the sanatorium for its indigent patients. In addition, there is a county sanatorium (Sedgwick County) with a capacity of 30 beds, and one municipal sanatorium with a capacity of 40 beds.

Clinics.—The tuberculosis association conducts local programs and a clinic service, which was organized in 1920. During 1929, the health department of the city of Topeka conducted 50 clinics which gave treatment to 384 patients.

DIVISION OF VENEREAL DISEASES

Personnel.—In 1930 the executive officer of the State department of health was the director of this division. He was unassisted.

Activities.—The State department of health carries on an educational program and furnishes salvarsan for the treatment of indigents.

Clinics.—There are five clinics under the supervision of the State department of health.

Treatments.—During 1929, 34,227 free treatments were administered, of which 6,949 were salvarsan.

DIVISION OF VITAL STATISTICS

Personnel.—In 1930 the personnel of the division of vital statistics consisted of the State registrar, an assistant registrar, two stenographers, a statistician, four full-time clerks, and a fifth part-time clerk.

Marriage-license fees.—Unlike most States the division of vital statistics in Kansas is supported by marriage-license fees. The probate judge collects from each applicant for a marriage license an additional registration fee of \$1.

Registration districts.—The primary registration districts in this State are the townships, incorporated towns, and cities.

Local registrars.—The township clerks, who are elected to their office, and the city clerks who are appointed by the city council or commission serve as local registrars. Upon order from the State registrar a fee of 25 cents for each certificate of birth or death and for each "no report" card is paid the local registrar by the county in which he resides.

Registration area.—Kansas was admitted to the registration area for death in 1914 and to the registration area for births in 1917.

Reporting of deaths.—In 1929, 99 per cent of all deaths occurring in the State were reported; 98 per cent of these were reported by physicians and undertakers. Deaths must be reported immediately to the local registrars and by the 10th of each month to the State registrar.

Legal standards.—The model law, standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 96 per cent of the births occurring in the State were reported; 99.3 per cent of these were reported by physicians and 0.7 per cent by midwives. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health provides blanks for recording the returns, and the local registrars supply the postage.

Unlawful death.—In case death is thought to have been caused by unlawful means the coroner must sign the death certificate.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—Physicians are licensed by the State board of registration and examination, and undertakers by the State board of em-

balmers. Midwives are not licensed but are required to register with the local registrar.

PUBLIC HEALTH LABORATORY

Personnel.—The staff of the public health laboratory in 1930 consisted of a bacteriologist, a part-time and two full-time technicians, a stenographer, and a part-time porter.

Branch and private laboratories.—No branch laboratories have been established up to the present, and the State department of health has no supervision over private laboratories in the State.

Special laboratories.—The following special laboratories are maintained by the State department of health: (1) Water and sewage laboratory at Lawrence; (2) food laboratory (milk and milk products only) at the agricultural college in Manhattan; (3) drug laboratory, University of Kansas, Lawrence; and (4) food laboratory (all food products except milk), University of Kansas, Lawrence.

Activities.—During 1929, 81,240 examinations were made. The chief examinations are Wassermann tests, tuberculosis sputa, and diphtheria examinations. A summary of diagnostic activities is given on pages 98-99.

Fees.—No fee is charged for any examination except water analyses. In case an animal is used for inoculation, a fee is charged to cover the cost of the animal used.

Biological products.—No biological products were manufactured at the State laboratory during 1929. Biologicals are distributed free to physicians and health officers through the division of communicable diseases except rabies treatments, which are purchased by the local boards of health. An analysis of biologicals issued during 1929 is given on page 102.

DIVISION OF SANITATION

Personnel.—According to law, a member of the faculty of either the school of engineering of the University of Kansas or the agricultural college at Manhattan, to be named by the State board of health, must be the chief engineer of the division of water and sewage. His actual and necessary expenses incurred while in the discharge of his duties as engineer are paid by the State department of health after approval by the executive officer of the board. In 1930 the personnel of the division consisted of the chief engineer, who was also the associate professor of sanitary engineering at the State university, two assistant engineers, the assistant director of the laboratory, a chemist, a bacteriologist, and a stenographer. In addition the part-time services of an assistant chemist, an assistant bacteriologist, a laboratory assistant, a shipping clerk, and a dishwasher were used.

Public water supplies and sewerage systems.—A written permission from the State department of health is necessary in order to install, change, or extend a public water-supply system in the State of Kansas.

Bottled water.—All plants for the preparation of water for sale in bottles are inspected twice a year by the division of water and sewage and full information as to sources must be filed with the State department of health. A fee of \$30 is charged annually for this service.

Analysis.—An analysis of all waters is required at least once a year by the State department of health. This analysis must be made by the water and sewage laboratory in the University of Kansas. The fees for this service have been fixed, based upon the population of the cities. All fees collected by the division of water and sewage are turned over to the State treasury for the benefit of the laboratory.

Inspection.—Water-filtration plants are inspected from time to time.

Ice industry.—All firms engaged in the ice industry must submit complete information concerning the source of water used and such detailed description of the processes involved as may be required by the State department of health. In addition ice plants must be licensed. An annual fee of \$15 is charged for this.

Camps and swimming pools.—Rules and regulations concerning the sanitation of camps and swimming pools have been passed by the State department of health. All public swimming pools must be registered with the State department of health and with the health officer of the county in which they are located.

Roadside water supplies.—Regulations have been adopted concerning roadside water supplies.

DIVISION OF CHILD HYGIENE

Personnel.—The personnel of the division of child hygiene in 1930 consisted of the director, who is also the director of the division of cooperative health work; a public-health nurse; a stenographer; a clerk, and a shipping clerk whose services were part time only.

Maternal and prenatal hygiene.—During 1929, 15 itinerant prenatal clinics were held. Maternal and prenatal work is also carried out through the full-time county health departments.

Midwifery.—Midwives are given instruction through the health-department nurses and the full-time county health departments.

Ophthalmia neonatorum.—The 1929 legislature passed a law requiring the use of a prophylactic in the eyes of the new born.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are licensed by the State board of health.

Infant and preschool hygiene.—During 1929, 180 itinerant infant and preschool clinics were held. A total of 4,854 infants was examined, 2,645 of whom were preschool children.

School hygiene.—Work among school children is carried on by the full-time medical directors of the county health departments and local boards of health. There is no legislative act requiring the medical examination of school children.

Public-health nursing.—Public-health nursing was organized in 1922 and the work combined with that of the division of child hygiene. Cities may levy a tax for the support of public-health nursing.

Eligibility requirements.—A State public-health nurse must be a graduate nurse and must have had a year's training in public health work. A local public-health nurse must have had six months' training in the field.

DIVISION OF FOOD AND DRUGS

Personnel.—The executive officer is ex officio the food and drug inspector. In 1930 he was aided by the assistant chief food and drug inspector, four traveling food and drug inspectors, and a stenographer.

Food inspection.—The activities of this department consist of the inspection of all places where foods and drugs are manufactured, sold, or offered for sale; the inspection of all food and drugs to determine their fitness for human use; the enforcement of the weights and measures law. The work is carried on in conjunction with the Federal food and drug department of the Bureau of Chemistry.

Food handlers.—The medical examination of food handlers is not required by the State department of health.

Inspection.—Slaughterhouses are inspected by the local boards of health and cold-storage warehouses by the State department of health.

Shellfish.—The act granting to the State department of health the supervision of food products includes the prevention of the pollution of shellfish gathering areas.

Milk supplies.—The State department of health has general supervision over milk and its products, but the State dairy commissioner has charge of the enforcement of the dairy laws. There are no State regulations governing the pasteurization of milk. However, 86 cities have adopted milk ordinances including pasteurization. The tuberculin testing of cattle is a function of the State livestock commission.

Food and drug laboratories.—There are three laboratories connected with this division: A food laboratory for testing samples of milk, a food laboratory for analyzing samples of food, and a drug laboratory.

TABLE 131.—Total budget, State legislative budget for health work, and budgets by divisions, by years

KANSAS

Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$53,084	\$54,619	\$64,006	\$64,192	¹ \$104,940	^{1 2 3} \$104,804
State legislative budget, plus fees.....	53,084	54,619	64,006	64,192	86,043	92,536
Executive office.....	2,900	3,200	5,700	5,700	8,200	8,200
Division of communicable diseases.....	7,000	7,000	7,500	7,500	6,700	⁴ 8,900
Division of vital statistics ⁴	9,539	10,534	11,840	11,832	16,893	16,387
Public health laboratory.....	2,200	2,200	2,700	3,000	3,000	10,646
Division of sanitation ⁴	9,045	9,360	8,260	8,460	8,950	8,950
Division of child hygiene.....	5,000	5,000	7,500	7,500	7,500	7,500
Division of food and drugs.....	16,200	16,200	17,000	17,000	19,700	19,700
Division of venereal diseases.....					¹ 23,897	^{1 2 3} 25,095
Full-time county units ⁵					10,000	^{2 3} 15,536
Division of cooperative health work.....						
Board members.....						

Division	1921	1922	1923	1924	1925
Total budget.....	^{1 2 3} \$122,452	^{1 2 3 6} \$116,223	^{1 2 3 6} \$103,211	^{1 2 3} \$92,203	^{1 2 3} \$108,921
State legislative budget, plus fees.....	105,408	83,679	81,594	83,706	101,295
Executive office.....	8,200	8,200	8,200	8,200	8,800
Division of communicable diseases.....	³ 11,400	³ 11,400	³ 8,850	³ 8,250	³ 9,400
Division of vital statistics ⁴	16,387	17,703	16,679	13,806	12,453
Public health laboratory.....	³ 15,250	³ 15,250	³ 9,750	7,000	10,661
Division of sanitation ⁴	8,120	7,800	7,900	8,700	24,088
Division of child hygiene.....	7,500	⁶ 15,000	⁶ 15,000	7,500	7,500
Division of food and drugs.....	16,400	16,400	16,400	16,400	16,400
Division of venereal diseases.....	¹ 5,389	¹ 7,874	¹ 4,674	¹ 3,418	¹ 839
Full-time county units ⁵	^{2 3} 16,609	^{2 3} 17,519	^{2 3} 17,943	^{2 3} 16,828	(?)
Division of cooperative health work.....					^{2 3} 17,300
Board members.....					1,500

Division	1926	1927	1928	1929	1930
Total budget.....	^{2 3} \$104,598	^{2 3 6} \$114,446	^{2 3 6} \$127,108	^{2 3 6} \$134,874	^{2 3} \$122,956
State legislative budget, plus fees.....	93,048	93,236	97,979	101,174	108,456
Executive office.....	7,800	7,888	7,500	7,500	7,500
Division of communicable diseases.....	10,400	10,400	9,200	9,700	10,700
Division of vital statistics ⁴	17,458	15,278	16,808	17,661	18,000
Public health laboratory.....	10,749	10,526	10,576	10,068	10,450
Division of sanitation ⁴	22,514	24,381	24,696	26,663	25,106
Division of child hygiene.....	5,000	⁶ 14,800	⁶ 21,627	⁶ 25,300	10,000
Division of food and drugs.....	16,400	16,400	15,400	15,400	15,400
Division of venereal diseases.....	751	974	924	1,432	1,050
Full-time county units ⁵	(?)	(?)	(?)	(?)	(?)
Division of cooperative health work.....	^{2 3} 12,026	^{2 3} 12,350	^{2 3} 19,227	^{2 3} 19,900	^{2 3} 23,500
Board members.....	1,500	1,500	1,500	1,250	1,250

¹ U. S. Chamberlain-Kahn funds included. (See Table 132.)² U. S. Public Health Service funds included. (See Table 132.)³ Rockefeller Foundation funds included. (See Table 132.)⁴ Fees included. (See Table 132.)⁵ Appropriations by counties and others not included.⁶ U. S. Children's Bureau funds included. (See Table 132.)⁷ Included under division of cooperative health work.

TABLE 132.—Total appropriations for State department of health, by years

KANSAS

Year	Total appropriation	State legislature	U. S. Public Health Service ¹	U. S. Children's Bureau	Rockefeller Foundation	Fees
1915.....	\$53,084	\$39,500				\$13,584
1916.....	54,619	39,725				14,894
1917.....	64,006	48,900				15,106
1918.....	64,192	48,900				15,292
1919.....	104,940	67,200	¹ 18,897			18,843
1920.....	104,804	72,200	9,300		\$2,968	20,337
1921.....	122,452	84,585	4,964		12,079	20,823
1922.....	116,223	64,200	7,394	\$7,500	17,650	19,479
1923.....	103,211	64,200	4,279	7,500	9,837	17,394
1924.....	92,203	64,974	2,872		5,625	18,732
1925.....	92,481	51,700	9,760		2,708	28,313
1926.....	104,598	53,076	9,400		3,650	38,472
1927.....	114,446	53,575	8,600	9,800	4,275	38,196
1928.....	127,108	56,350	12,300	16,627	1,927	39,904
1929.....	134,874	56,850	12,500	20,300	2,400	42,874
1930.....	122,956	65,350	11,000		5,000	41,606

¹ Includes United States Chamberlain-Kahn funds

KENTUCKY

STATE BOARD OF HEALTH

Organization.—The State Board of Health of Kentucky consists of nine members, eight of whom are appointed by the governor, by and with the advice and consent of the senate. The ninth member, who is the secretary and State health officer, is elected by the board, and, by virtue of his office of secretary, is a member of the board. If the board elects one of its members as secretary, the governor then appoints another member to complete the number of the board. The members of the State board of health must be legally qualified to practice, except one, who must be a licensed pharmacist. One member must be a homeopathic, one an eclectic, one an osteopathic physician, and the remaining members must be allopathic or regular physicians. The members are appointed from a list of three names for each vacancy, furnished, respectively, by the State society or association of such schools or systems of practice.

Term of office and compensation.—The members serve for a period of six years; the terms of office of not more than two members expire in one year. They receive no compensation, but actual traveling expenses are paid. The president of the board receives a salary of \$1,200 a year.

Meetings.—Semiannual meetings of the board are held; special meetings are held upon call of the president.

Executive committee.—There is an executive committee of the State board of health, which consists of a quorum of the board. This committee meets when necessary on call of the secretary of the board and acts in an advisory capacity in matters of policy.

EXECUTIVE OFFICER

Legal qualifications.—The secretary of the State board of health, who is also State health officer and a qualified licensed physician, trained in public health administration, may be chosen from the members of the board or from outside their membership.

Term of office and compensation.—The executive officer serves for a term of 4 years and receives a salary of \$5,000 as State health officer. Approximately \$1,500 is set aside annually for the traveling expenses of the executive officer.

POWERS OF THE STATE HEALTH DEPARTMENT

Judicial, legislative, and executive powers.—The State department of health has quasi judicial, legislative, and executive power concerning sanitation in general, water pollution, plumbing, sewage disposal, milk supplies, food adulteration, hotels, communicable diseases, health education, social hygiene, quarantine, nuisances, enforcement of the medical practice law, and supervision of midwives.

Kentucky - Organization of the State Department of Health in 1930

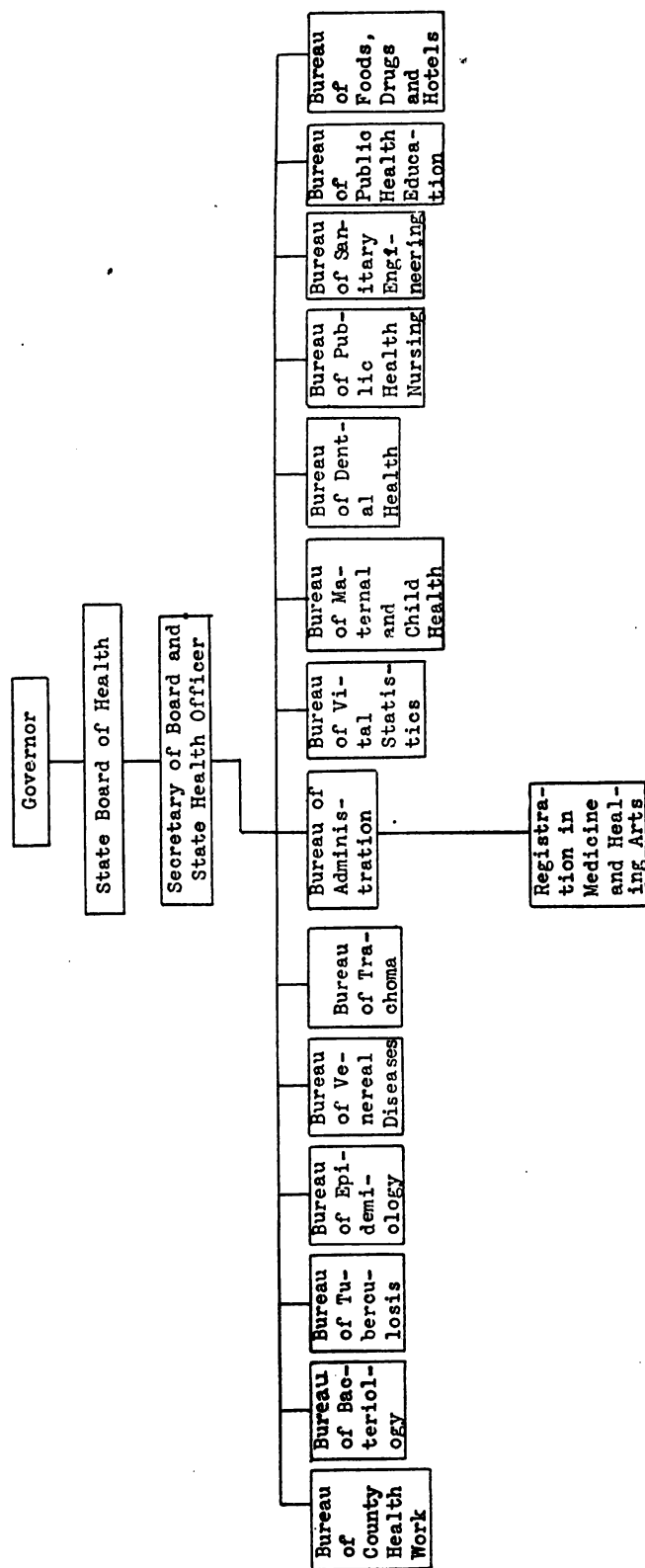


FIGURE 34

APPROPRIATIONS

The State legislature makes a yearly appropriation to the State department of health and certain amounts are allotted by the State health officer to the various bureaus. The legislature meets in January of even years. The fiscal year of the health department ends June 30.

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the bureau of administration in 1930 consisted of the State health officer, the secretary to the State health officer, the budget director, and 10 assistants. The president of the State board of health is also included in the personnel of this bureau.

TABLE 133.—Bureaus of the State department of health in 1930 ¹

KENTUCKY

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$28,206	14	\$5,000	\$14,690	\$19,690
Bureau of county health work.....	112,174	7	4,800	² 207,132	² 211,932
Bureau of epidemiology.....	7,523	2	4,000	1,500	5,500
Bureau of tuberculosis.....	20,000	³ 22	3,600	21,477	25,077
Bureau of venereal diseases.....	25,000	⁴ 23	3,600	11,480	15,080
Bureau of trachoma.....	22,500	3	3,600	2,644	6,244
Bureau of vital statistics.....	12,742	13	2,500	8,137	10,637
Bureau of bacteriology.....	⁵ 9,226	⁴ 5	3,600	2,357	5,957
Bureau of sanitary engineering.....	5,169	2	3,600	1,200	4,800
Bureau of maternal and child health.....	17,141	19	3,600	29,040	32,640
Bureau of public health nursing.....	7,500	⁶ 26	2,400	7,500	9,900
Bureau of dental health.....	10,000	5	(⁷)	4,230	4,230
Bureau of foods, drugs, and hotels.....	29,367	11	3,000	15,080	18,080
Medical enforcement act.....	4,704	2	(⁷)	3,900	3,900

¹ Total appropriation, \$583,951; total appropriation exclusive of tuberculosis sanatorium funds, \$563,134; State legislative appropriation exclusive of tuberculosis sanatorium funds, \$145,400.

² Includes salaries in full-time counties.

³ 18 are employed at the tuberculosis sanatorium.

⁴ Officials included whose time is devoted to more than 1 activity.

⁵ \$18,000 appropriated for the Lexington laboratory not included.

⁶ No salary.

⁷ Under bureau of administration.

Civil service.—The employees of the State department of health do not come under civil service. A change in State administration does not affect the tenure of personnel of the department.

Activities.—The activities of the bureau of administration are numerous, consisting of administration, education, publicity, budgets, reports, custodian of records and the office building, and registration of those licensed under the medical practice act and the healing art law.

Disbursement of funds.—Funds are disbursed on vouchers signed by the president and secretary of the board and audited by the State auditing department. The official bookkeeper is the disbursing agent.

Purchases.—Supplies are purchased through the State purchasing commission.

BUREAU OF COUNTY HEALTH WORK

The bureau of county health work has been functioning since 1920.

Personnel.—The staff of the bureau of county health work in 1930 consisted of a director, two field assistants, a special sanitary inspector, a secretary, an accountant, and a clerk.

Activities.—The director encourages the organization of new full-time departments, supervises the program of work and collaborates in epidemiological problems, and receives and compiles reports from the counties.

State aid.—There is a basic law in this State authorizing the organization of full-time departments and providing for State aid. The problem of financing new units continues to be a real barrier, however, to the expansion of this field of work and inability to secure State aid has delayed the development of new units.

Full-time county health organizations.—The first full-time county unit was organized in 1908. At the close of 1930 there were 43 full-time organizations.

Municipal health departments.—In addition to the full-time county health organizations, municipal health departments are maintained in cities having a population of over 10,000 except when they are located in counties with a full-time health organization. At the close of 1929 there were 38 municipal health departments.

Supervision.—The State department of health appoints a majority of the members of the local boards of health and has general supervisory authority over the selection of the personnel, program, budget, and finances in general.

TABLE 134.—Data on full-time counties operating throughout 1929

KENTUCKY

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Jefferson.....	1908	348,460	\$18,300	\$0.05	\$329,641,000	\$0.0001	Louisville (300,519).....	1	2	4	1	2
Mason.....	1917	18,732	9,360	.50	23,118,000	.0004	.....	1	2	2	.....	.....
Boyd.....	1920	42,385	14,600	.34	22,860,000	.0006	Ashland (27,617).....	1	1	4	.....	.....
Daviess.....	1920	43,469	8,750	.20	30,624,000	.0003	Owensboro (22,248).....	1	1	1	.....	.....
Scott.....	1920	14,490	8,500	.59	20,721,000	.0004	.....	1	.....	1	1	.....
Bell.....	1921	38,290	12,500	.33	15,495,000	.0008	Middlesborough (10,084).....	1	1	3	.....	.....
Fulton.....	1921	14,954	11,600	.78	10,755,000	.0011	.....	1	1	3	.....	.....
Johnson.....	1923	22,637	10,000	.44	8,301,000	.0012	.....	1	1	2	.....	.....
Fayette.....	1923	67,138	11,900	.14	85,897,000	.0001	Lexington (45,305).....	1	1	2	1	.....
Knott.....	1926	14,868	6,850	.46	4,107,000	.0017	.....	1	.....	2	.....	.....
Henderson.....	1927	26,646	12,500	.47	27,541,000	.0005	Henderson (12,511).....	1	1	2	.....	1
Pike.....	1927	62,126	10,280	.17	23,294,000	.0004	.....	1	1	2	.....	.....
Hopkins.....	1927	37,116	10,000	.27	17,508,000	.0006	.....	1	1	2	.....	.....
Breathitt.....	1927	20,506	8,000	.39	5,016,000	.0016	.....	1	1	1	.....	.....
Perry.....	1927	40,568	11,000	.27	15,272,000	.0009	.....	1	1	2	.....	.....
Ballard.....	1927	10,119	8,000	.79	10,815,000	.0007	.....	1	1	1	.....	.....
Floyd.....	1927	40,468	11,000	.27	11,939,000	.0009	.....	1	1	2	.....	.....

TABLE 134.—Data on full-time counties operating throughout 1929—Continued

KENTUCKY—Continued

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Hickman.....	1927	8,876	\$8,000	\$0.90	\$8,562,000	.0009	-----	1	1	1	1	..
Leslie.....	1927	10,700	6,000	.56	3,866,000	.0016	-----	1	..	1	1	..
Elliott.....	1927	7,708	3,250	.42	1,530,000	.0021	-----	(¹)	..	1	1	..
Carter.....	1927	23,752	8,000	.34	6,955,000	.0012	-----	1	1	1	1	..
Carlisle.....	1927	7,448	8,000	1.07	6,841,000	.0012	-----	1	1	1	1	..
Letcher.....	1927	34,664	11,000	.32	14,482,000	.0008	-----	1	1	2	1	..
Owsley.....	1927	7,379	4,000	.54	1,607,000	.0025	-----	1	..	1	1	..
Lawrence.....	1927	16,806	6,000	.36	7,807,000	.0008	-----	1	..	1	1	..
Webster.....	1927	24,807	8,000	.32	10,710,000	.0007	-----	1	1	1	1	..
Estill.....	1927	16,928	8,000	.47	6,480,000	.0012	-----	1	1	1	1	..
Magoffin.....	1927	15,533	6,000	.39	3,816,000	.0016	-----	1	..	1	1	..
McLean.....	1927	11,215	8,000	.71	7,485,000	.0011	-----	1	1	1	1	..
Meniffee.....	1927	5,041	6,000	1.19	2,032,000	.0030	-----	1	..	1	1	..
Wolfe.....	1927	8,540	6,000	.70	2,710,000	.0022	-----	1	..	1	1	..
Lee.....	1927	9,947	6,000	.60	5,550,000	.0011	-----	1	..	1	1	..
Martin.....	1927	8,482	4,000	.47	3,330,000	.0012	-----	1	..	1	1	..
Morgan.....	1927	15,393	6,000	.39	5,070,000	.0012	-----	1	..	1	1	..
Bullitt.....	1928	8,914	4,000	.45	7,219,000	.0006	-----	1	..	1	1	..
Ohio.....	1928	24,673	8,000	.32	12,964,000	.0006	-----	1	1	1	1	..
Trigg.....	1928	12,696	8,000	.63	4,948,000	.0016	-----	1	1	1	1	..
Monroe.....	1928	13,188	8,000	.61	3,724,000	.0021	-----	1	1	1	1	..
Knox.....	1929	26,044	6,130	.24	8,596,000	.0007	-----	1	1	2	1	..
Whitley.....	1929	29,522	6,130	.21	9,108,000	.0007	-----	(²)	(²)	(²)	..	..
Total.....		1,211,232	335,650	.28	808,296,000	.0004	-----	38	26	57	3	3

¹ Public-health nursing service directed by health officer of Morgan County.² Personnel included under Knox County.

BUREAU OF EPIDEMIOLOGY

Personnel.—The staff of the bureau of epidemiology in 1930 consisted of a director and a secretary.

Report of diseases.—Physicians transmit reports of communicable diseases to the State department of health through county and city health officers. Reports are made on Saturday of each week.

Quarantine.—Quarantine measures are under the control of county and city boards of health. The State department of health, however, may quarantine when necessary any community in the State.

Smallpox vaccination.—Smallpox vaccination is compulsory for the school children in this State.

Emergency fund.—The sum of \$10,000 is appropriated as an emergency fund for the control of communicable diseases only. It may be used with the approval of the governor.

BUREAU OF TUBERCULOSIS

History.—In 1920 a special appropriation of \$20,000 was made from the general revenue for the maintenance and operation of the State tuberculosis sanatorium by the bureau of tuberculosis, the

director of the bureau acting also as the superintendent of the State tuberculosis sanatorium.

Personnel.—In 1930 the director of the bureau was assisted by an executive secretary, a secretary, a typist, an interne, a matron, a head nurse, 9 nurses, a chef, 2 floor boys, an engineer, a chauffeur, a storekeeper (part time), 2 maids, a laundress, a farmer, 2 dish washers, 5 tray boys, 2 waiters, and 2 kitchen boys.

Sanatoria.—There is one State sanatorium, with a capacity of 70 beds. The State appropriates \$10,000 for free beds in the State sanatorium. In addition the fiscal courts appropriate \$15 per week for indigent cases recommended by the local boards of health. The total amount appropriated in 1930 was \$20,817. There is one municipal sanatorium with 400 beds. Two county sanatoria with a total capacity of 550 beds are supported by an 8-cent tax and levy payment by pay patients and by 50 cents a day for State aid for indigent patients. The State also pays 25 per cent of the construction of county sanatoria.

Clinics.—Twenty-five diagnostic clinics were conducted during 1929 in 19 counties under the supervision of the State department of health. A total of 785 patients was treated. Jefferson County and City Hospital conducted 1,101 clinics and treated 3,887 patients. In addition the public-health nursing association in Lexington maintained 104 clinics during 1929 and treated 489 patients.

Nursing service.—In 1929 there were about 118 public-health nurses in the State doing general work, which includes tuberculosis work.

Educational activities.—The department also has charge of the health-education programs relating to tuberculosis in the public and normal schools of the State, acting in conjunction with the State board of education.

BUREAU OF VENEREAL DISEASES

Personnel.—The staff of the bureau of venereal diseases in 1930 consisted of a director, a secretary, 3 follow-up workers, 7 paid clinicians, and 100 volunteer clinicians. In the social hygiene association, acting under the bureau of venereal diseases with a separate appropriation, there is employed a full-time executive secretary and a part-time field director.

Activities.—The State department of health has the right to require reports of venereally infected cases from physicians and also has the right to quarantine.

Education.—Through the social hygiene association of Kentucky, a complete educational program in social health is carried on throughout the State, concentrating in the full-time county health departments, where a continuous program can be carried on. Motion pictures, lectures, radio talks, and literature are used in this work.

Clinics.—Thirty-five clinics were maintained by the State department of health during 1929. In most instances, the clinics are “nominal pay clinics” where the patients pay a small fee of from 25 cents to \$1.50. At least one physician has been secured in each county who is willing to act as a cooperative clinician. These physicians agree to treat all indigent patients coming under their care, the State department of health furnishing one-half the salvarsan for indigent patients. They also agree to attend the large clinics in the State that assemble at convenient places for the discussion of the modern diagnosis and treatment of venereal diseases. This has proven one of the most effective features of the work.

Treatments.—During 1929, 57,943 treatments for venereal diseases, 18,008 of which were salvarsan, were administered; 38,628 were furnished free.

BUREAU OF TRACHOMA

According to the laws of this State each county board of health, acting in cooperation with the State board of health and the county medical society, must arrange for an annual course of instruction to teach the importance and treatment of trachoma and ophthalmia or any other disease of the eyes.

Personnel.—In 1930 the personnel of the bureau of trachoma was composed of a director, a secretary, and a nurse.

Activities.—The aim of the bureau is to cooperate with the local health authorities in bringing all cases of trachoma under treatment and control, to conduct physical examinations of school children, and to conduct free clinics for the treatment and care of cases of trachoma. Children who are infected with trachoma are prohibited from attendance at school and other assemblies.

Clinics.—The State department of health maintains a traveling examination and treatment program. During 1929, 46 clinics were conducted under the supervision of the State health department, 3,050 treatments administered and 4,156 corrections made.

Trachoma.—The United States Public Health Service cooperates with the State board of health in financing a trachoma hospital for free care and treatment of trachoma cases.

BUREAU OF VITAL STATISTICS

Personnel.—In 1930 the State registrar of vital statistics was assisted by a secretary, 11 clerks, and a field inspector.

Registration districts.—The city, incorporated town, and county (exclusive of cities and towns) is the registration district.

Local registrars.—The local registrars are appointed by the county health officers from a list of three names submitted by the State registrar. In cities or towns the health officer acts as local registrar.

These registrars receive a fee from the county of 25 cents for each record.

Registration area.—Kentucky was admitted to the registration area for deaths in 1911 and to the registration area for births in 1917.

Reporting of deaths.—In 1929, 96 per cent of the deaths were reported; 85 per cent were reported by physicians and 15 per cent by others. Deaths must be reported to the local registrar before burial and by the 10th of the month to the State registrar.

Legal standards.—The model law and standard certificate are used in the State. Beginning in 1925 this bureau began the system of punching cards and tabulating the causes of death in accordance with the international classification.

Reporting of births.—In 1929, 95 per cent of the births were reported; 82 per cent were reported by physicians and 18 per cent by midwives. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are reported as births and deaths.

Blanks and postage.—The State department of health supplies the postage and blanks for returns.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians and midwives are licensed by the State board of health and undertakers by the State board of undertakers and embalmers.

BUREAU OF BACTERIOLOGY

Laboratories.—There are two main laboratories, one which receives its appropriation of \$18,000 directly from the State treasury and is under the direction of the University of Kentucky in Lexington, and one in the State board of health building at Louisville.

Personnel.—The staff of the bureau of bacteriology in 1930 consisted of a director, an assistant director, three part-time clinicians, and assistance from students of the school of laboratory technicians equivalent to the work of approximately eight full-time employees.

City or county laboratories.—The State department of health has supervision over the city or county laboratories of the State.

Special laboratories.—No special laboratories are maintained by the State department of health.

Activities.—During 1929 the Louisville laboratory made 14,123 examinations, the chief in importance being the examination of feces for intestinal parasites, water analyses, tuberculosis sputa examinations and uranalyses. The Lexington laboratory made 76,172 examinations. Food and drug examinations, Wassermann tests, and general water

analyses are done at the Lexington laboratories. A summary of the activities of the two laboratories is given on pages 98-99.

Fees.—No charges are made for any examinations performed by the laboratories.

Biologicals.—Typhoid vaccine and silver nitrate ampoules are manufactured by the Louisville laboratory. Other vaccines and sera are purchased and distributed through the bureaus of epidemiology and bacteriology. Typhoid vaccine, antirabic treatments, and silver nitrate ampoules are furnished free; all others are issued at cost. A summary of the biologicals distributed during 1929 is given on page 102.

Laboratory school.—A school for laboratory technicians is carried on by this bureau, and 73 pupils were graduated in 1929.

BUREAU OF SANITARY ENGINEERING

Personnel.—In 1930 the staff of the bureau of sanitary engineering was composed of a sanitary engineer and a secretary.

Public water supplies and sewage-disposal systems.—Plans for the installation, alteration, or extension of public water supplies or sewage-disposal systems must be submitted to the State department of health for approval in writing.

Analysis.—From 2 to 50 samples from each public water supply are analyzed yearly.

Inspection.—Water-purification plants are inspected from one to four times a year.

Bottled waters.—The control of bottled waters is included in the food and drugs law which is administered by the State department of health.

Ice industry.—Legislation has been passed governing the ice industry.

Camps, swimming pools, and roadside water supplies.—Rules and regulations have been passed governing the sanitation of camps, swimming pools, and roadside water supplies.

BUREAU OF MATERNAL AND CHILD HEALTH

Personnel.—In 1930 the personnel of the bureau of maternal and child health consisted of a director, an assistant director, a secretary, a field nurse, two nurses for maternal and child-health demonstrations, two physicians, and a mimeograph operator.

Prenatal clinics.—In addition to demonstration prenatal clinics, there are two permanent clinics with unlimited capacity.

Midwifery.—An annual class of instruction for midwives is held in each county.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported within six hours. The State department of health furnishes the treatment for such cases to physicians and midwives. The use of

a prophylactic is required. Prophylactic ampoules are supplied free of charge to physicians and midwives.

Lying-in hospitals and orphanages.—There are no lying-in hospitals in the State and orphanages are not licensed.

Infant and preschool clinics.—Infant and preschool clinics are conducted throughout the State in connection with the full-time health units, and conferences are held by an itinerant staff of the bureau of maternal and child health. During 1929, 138 clinics were conducted by the staff and 3,088 infants were examined. Defective children are referred to private physicians and dentists.

School hygiene.—School hygiene is carried out as a part of the duties of the bureau of maternal and child health. Medical examinations are conducted by local physicians with the cooperation of the full-time health officers or specially assigned physicians from the bureau of maternal and child health. Follow-up work is carried on by the public-health nurses who secure corrections either through the family physician or through corrective clinics conducted by local physicians. This work is financed either by local, State, or volunteer funds. The State board of education cooperates in carrying on this work..

BUREAU OF PUBLIC-HEALTH NURSING

History.—The bureau of public-health nursing was created by law in 1916. The public-health nurse act of 1918 provided State aid to any county employing a public-health nurse.

Personnel.—In 1930 the staff of the bureau of public-health nursing consisted of a director and 25 part-time nurses.

Activities.—This bureau secures and nominates public-health nurses for other bureaus of the health department and for the full-time health departments; recommends public-health nurses to such other organizations in the State as employ them; supervises the professional work of the nurses in the full-time health departments through visits and correspondence; and acts in an advisory capacity for all other public-health nurses. It also provides educational opportunities for nurses through State institutes, traveling libraries, personal conferences, etc. It coordinates the nurses' activities of welfare leagues and other private organizations with the work of the county board of health and supervises the public-health activities of the nurses employed by the Kentucky Tuberculosis Association.

Eligibility requirements.—State supervisors of public-health nursing must have had a course in public-health nursing in addition to experience in the field. Nurses working in counties which have part-time health departments under health and welfare leagues or private organizations are required to have completed a successful course in public-health nursing or to have had at least one year's experience under adequate supervision. Supervisors in full-time health depart-

ments are required to have had at least the above qualifications, while the subordinates have, as a minimum, 6 weeks training at a training station.

Number of nurses.—In 1929 there were 180 public-health nurses working in 60 counties. Of these, 53 were working in full-time health departments and 66 were in Louisville. Others were in the industrial field, health and welfare leagues, boards of education, settlement schools, and special demonstrations.

BUREAU OF DENTAL HEALTH

Personnel.—The staff of the bureau of dental health in 1930 consisted of a director (no salary), an assistant director, a clinician, a part-time secretary, and a stenographer.

Activities.—The assistant director and the clinicians held examining and corrective clinics throughout the State during 1929. A total of 1,143 teeth was filled, 116 teeth extracted, and 572 sets of teeth cleaned.

BUREAU OF MENTAL HYGIENE

Personnel.—The director, who is also in charge of the psychological clinic in Louisville, acts in a purely advisory capacity, without salary, for the bureau of mental hygiene.

Activities.—A total of 2,725 clinic services was given to 447 individuals during 1929.

BUREAU OF PUBLIC-HEALTH EDUCATION

Appropriation.—There is no special appropriation for this bureau. The salaries are provided through other bureaus.

Bulletins.—A monthly bulletin is issued by the bureau and special bulletins are published from time to time.

Press service.—Municipal and county papers are reached through publicity reports.

Equipment.—The State department of health owns a stereopticon, 500 slides, 15 motion-picture films, and several portable exhibits.

Radio.—Weekly radio talks on various health subjects are given.

Cooperation.—The bureau of public-health education contributes the State course of study in public health included in the school textbooks; furnishes a course of lectures and an outline of a health program for each State normal school; and provides health lectures for educational club groups in rural sections conducted by the extension department of the State university.

BUREAU OF FOODS, DRUGS, AND HOTELS

Personnel.—The staff of the bureau of foods, drugs, and hotels in 1930 consisted of a director, three office assistants, a dairy inspector, an assistant sanitary engineer, a supervising inspector and lawyer, four general hotel and egg inspectors.

Activities.—To carry on the work of this bureau effectively, the State has been divided into three districts—eastern, western, and central. A food and hotel inspector has been assigned to each district. Under the provisions of the food and drugs law, the bureau collects drugs, foods, and milk for analysis. Such analyses are made by the public-service laboratories of the State university at Lexington.

Medical examinations.—The medical examination of milk handlers is required in the adoption of the standard milk ordinance as recommended by the State department of health to municipalities desiring milk legislation. Examinations of all milk pasteurizing plants and ice-cream plants in the State are handled by the State, city, or county health departments. This examination is now being required of other food-handling establishments.

Permits.—Permits are required by the State department of health to operate hotels, restaurants, rooming houses, boarding houses, lunch stands, and egg dealers.

Inspection.—The inspection of slaughterhouses is required, but as yet no regulations have been passed concerning cold-storage plants.

Shellfish.—The prevention of the contamination of shellfish, sold as food, is provided for under the supervision of the State department of health.

Milk laws.—The state-wide sanitation plan of the United States Public Health Service has been adopted and extensive milk surveys have been made. The tuberculin testing of cattle may be ordered by the State health department, but in 1930 the work was carried on by the county area plan, the State livestock sanitary board cooperating with the bureau of animal industry. In a few cities dairies are licensed through local ordinances. Pasteurization regulations have been passed and enforced by the State health department.

TABLE 135.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

KENTUCKY

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$30,000	\$30,000	\$30,000	\$30,000	\$99,898 ^{1 2 3}	\$243,497
Total budget exclusive of tuberculosis sanatorium funds.....	30,000	30,000	30,000	30,000	99,898	243,497
State legislative budget exclusive of tuberculosis sanatorium funds.....	30,000	30,000	30,000	30,000	75,000	175,746
Bureau of administration.....	9,000	9,000	9,000	9,000	21,000	21,946
Bureau of vital statistics.....	9,000	9,000	9,000	9,000	9,000	9,000
Bureau of bacteriology and epidemiology ³	6,000	6,000	6,000	6,000	24,000	24,312
Bureau of sanitary engineering.....	6,000	6,000	6,000	6,000	6,000	8,000
Bureau of tuberculosis.....		17,835	15,000	15,000	5,000	20,000
Bureau of venereal diseases.....					¹ 24,898	¹ 54,169
Bureau of foods, drugs, and hotels.....					10,000	10,750
Bureau of county-health work.....						³ 4,592
Full-time counties.....						^{1 2 3} 48,632

¹U. S. Public Health Service funds included. (See Table 136.)

²Local appropriations included. (See Table 136.)

³Rockefeller Foundation funds included. (See Table 136.)

⁴Budgets for both Louisville and Lexington laboratories.

310 HEALTH DEPARTMENTS OF STATES AND PROVINCES

TABLE 135.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

KENTUCKY—Continued

Bureau	1921	1922	1923	1924	1925
Total budget.....	^{1 2 3} \$242,282	^{1 2 3 4} \$204,349	^{1 2 3 4} \$257,489	^{1 2 3 4} \$257,776	^{1 2 3 4} \$257,344
Total budget exclusive of tuberculosis sanatorium funds.....	242,282	204,349	257,489	257,776	257,344
State legislative budget exclusive of tuberculosis sanatorium funds.....	172,679	141,453	162,130	160,205	158,694
Bureau of administration.....	21,946	23,237	23,237	28,746	29,100
Bureau of vital statistics.....	9,000	9,600	9,600	10,000	10,000
Bureau of bacteriology and epidemiology ⁵	24,312	25,780	25,780	26,427	26,500
Bureau of sanitary engineering.....	8,409	6,414	6,822	9,427	9,000
Bureau of tuberculosis.....	20,000	10,000	10,000	10,000	10,000
Bureau of venereal diseases.....	¹ 40,603	¹ 25,144	¹ 22,286	¹ 15,572	15,000
Bureau of foods, drugs, and hotels.....	9,253	8,822	12,186	18,206	20,095
Bureau of county-health work.....	³ 6,758	³ 6,800	³ 6,800	³ 6,800	³ 6,800
Full-time counties.....	^{1 2 3} 70,300	^{1 2 3} 65,053	^{1 2 3} 83,032	^{1 2 3} 88,001	^{1 2 3} 49,475
Bureau of trachoma ⁶		11,000	11,000	15,000	15,000
Bureau of maternal and child hygiene.....		⁴ 5,000	⁴ 47,597	⁴ 47,597	⁴ 47,598

Bureau	1926	1927	1928	1929	1930
Total budget.....	^{1 2 3 4} \$251,271	^{1 2 3 4} \$404,076	^{1 2 3 4} \$496,881	^{1 2 3 4} \$620,608	^{1 2 3} \$583,951
Total budget exclusive of tuberculosis sanatorium funds.....	238,622	381,922	475,134	599,753	563,134
State legislative budget exclusive of tuberculosis sanatorium funds.....	128,799	146,199	146,199	166,699	145,400
Bureau of administration.....	21,500	19,639	18,964	28,615	28,206
Bureau of vital statistics.....	14,798	18,348	17,242	16,338	12,742
Bureau of bacteriology and epidemiology ⁵	30,779	32,154	31,075	23,643	27,226
Bureau of sanitary engineering.....	8,384	8,037	8,024	7,508	5,169
Bureau of tuberculosis.....	10,000	10,000	20,000	27,684	20,000
Bureau of venereal diseases.....	15,000	20,000	20,000	30,389	25,000
Bureau of foods, drugs, and hotels.....	20,760	33,323	35,995	34,886	29,367
Bureau of county-health work.....	³ 25,969	³ 31,582	³ 103,075	³ 105,835	³ 112,174
Full-time counties.....	^{1 2 3} 52,725	^{1 2 3} 65,108	^{1 2 3} 178,455	^{1 2 3} 197,381	^{1 2 3} 250,306
Bureau of trachoma ⁶	15,000	15,000	15,000	22,500	22,500
Bureau of maternal and child hygiene.....	⁴ 21,299	⁴ 47,597	⁴ 47,597	⁴ 48,640	17,141
Bureau of public-health nursing.....	10,992	10,402	10,596	8,314	7,500
Medical enforcement act.....	4,559	4,971	3,945	4,638	4,704
Bureau of dental health.....			1,442	10,450	10,000
Bureau of epidemiology.....			135	6,830	7,523

¹ U. S. Public Health Service funds included. (See Table 136.)

² Local appropriations included. (See Table 136.)

³ Rockefeller Foundation funds included. (See Table 136.)

⁴ U. S. Children's Bureau funds included. (See Table 136.)

⁵ Budgets for both Louisville and Lexington laboratories.

⁶ Trachoma hospital funds included.

TABLE 136.—*Total appropriations for State department of health, by years*

KENTUCKY

Year	Total appropriation	Appropriation exclusive of tuberculosis funds	Source of funds and amounts					Others
			State Legislature ¹	United States Public Health Service	United States Children's Bureau	Full-time county units	Rockefeller Foundation	
1915.....	\$30,000	\$30,000	\$30,000					
1916.....	30,000	30,000	30,000					
1917.....	30,000	30,000	30,000					
1918.....	30,000	30,000	30,000					
1919.....	99,898	99,898	75,000	\$24,898				
1920.....	243,497	243,497	175,746	28,085		\$31,083	\$5,512	\$3,071
1921.....	242,282	242,282	172,679	15,603		38,500	9,500	6,000
1922.....	204,349	204,349	141,453	7,144	\$5,000	39,385	9,500	1,867
1923.....	257,489	257,489	162,130	4,085	26,299	45,167	13,458	6,350
1924.....	257,776	257,776	160,205	2,572	26,299	48,813	12,500	7,387
1925.....	257,344	257,344	158,694	1,925	26,300	50,975	12,150	7,300
1926.....	251,271	238,622	128,799	302	31,597	53,607	12,150	24,816
1927.....	404,076	381,922	146,199	63,477	26,299	117,352	11,050	39,699
1928.....	496,881	475,134	146,199	72,950	26,299	192,095	17,551	41,787
1929.....	620,608	599,753	166,699	86,559	26,299	247,729	35,785	57,537
1930.....	583,951	563,134	145,400	80,191		280,621	34,088	43,651

¹ Exclusive of tuberculosis sanatoria funds.

LOUISIANA

STATE BOARD OF HEALTH

Organization.—The governor, by and with the advice and consent of the senate, appoints a president and eight members, one from each congressional district, to compose the State board of health. Of the board members, five must be legally qualified and registered physicians, one must be a duly qualified and registered doctor of dental surgery, one must be an educator connected with the public-school system of the State, and one must be a registered druggist. The three latter members must have had 10 years' practical experience.

Term of office and compensation.—The members of the State board of health serve for a period of four years, the term of two members expiring every second year. The members receive \$15 per day for each day and fraction thereof consumed in performing their duties as members of the State board of health. In addition they receive 7 cents per mile for traveling expenses.

Meetings.—Quarterly meetings are held, and, as the emergency arises, special meetings are called by the president or three or more members.

EXECUTIVE OFFICER

Legal qualifications.—The president of the State board of health, who is the State health officer and is appointed by the governor, with the consent of the senate, from outside the membership of the board, is also the executive officer of the board.

Term of office and compensation.—The State health officer serves for four years and receives a salary of \$6,000 a year and traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health may hold hearings and has the power to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, and quarantine.

The enforcement of the medical practice act and the supervision of midwifery are not functions of the State department of health.

APPROPRIATIONS

There is an appropriation from the State legislature each year. Instead of budgeting each bureau, the amount of expenses incurred each year by the various bureaus is charged to profit and loss at the end of the year. The legislature meets in May of even years. The fiscal year of the health department ends June 30.

Louisiana - Organization of the State Department of Health in 1930

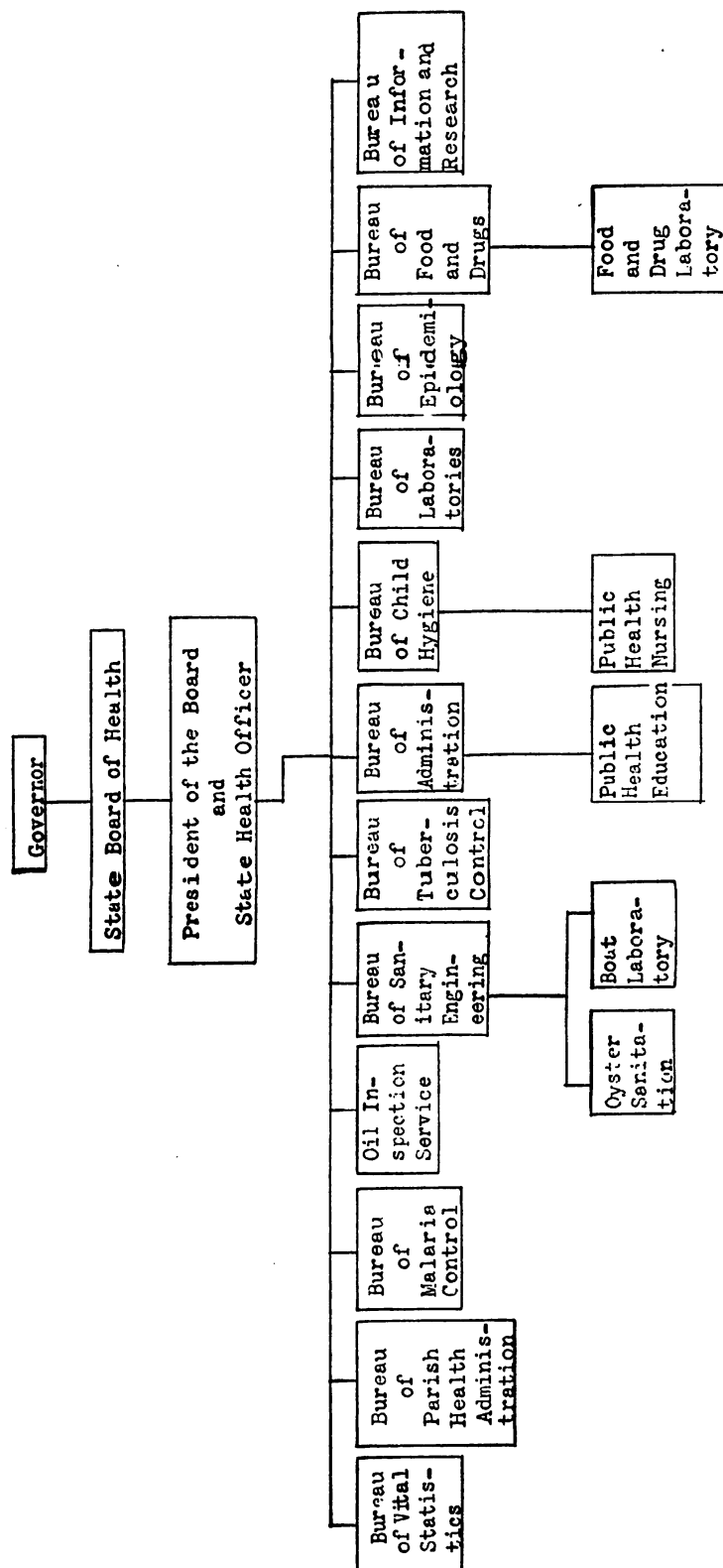


FIGURE 35

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the bureau of administration in 1930 consisted of the State health officer, a secretary, a bookkeeper, a law clerk, a filing clerk, a special representative, three stenographers, and a telephone operator.

Civil service.—The employees of the State department of health do not come under civil service. A change in State administration does not affect the tenure of office of the personnel of the health department.

TABLE 137.—Bureaus of the State department of health in 1930 ¹

LOUISIANA

Bureau ²	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	10	\$6,000	\$21,000	\$27,000
Bureau of parish health administration.....	10	(³)	(⁴)	(⁴)
Bureau of epidemiology.....	4	(⁵)	5,700	5,700
Bureau of malaria control.....	1	3,600	—	3,600
Oil inspection service.....	15	2,400	24,000	26,400
Bureau of vital statistics.....	27	3,000	31,678	34,678
Bureau of laboratories.....	5	2,600	9,072	11,672
Bureau of sanitary engineering.....	2	3,600	2,100	5,700
Bureau of child hygiene.....	6	(⁶)	8,640	8,640
Bureau of mental hygiene.....	1	3,000	—	3,000
Bureau of food and drugs.....	36	3,600	64,287	67,887
Veterinary service.....	2	2,400	1,300	3,700

¹ Total appropriation, \$397,071; total appropriation exclusive of tuberculosis sanatoria funds, \$397,071; State legislative appropriation, \$306,000.

² No specific appropriations or allotments made by bureaus.

³ Paid by the U. S. Public Health Service.

⁴ Not given.

⁵ Collaborating epidemiologist.

⁶ No director for this bureau at present.

Disbursement of funds.—Funds are disbursed upon the approval of the president of the board, the secretary-treasurer of the State board of health being the disbursing agent.

Purchases.—Supplies are purchased by the secretary-treasurer of the State board of health.

Public-health education.—The publicity activities of the State department of health are in charge of the director of the bureau of administration.

Press service.—The State department of health enjoys the cooperation of the press service of the State.

Bulletins.—A quarterly bulletin is issued, and miscellaneous pamphlets are published from time to time.

Equipment.—The State department of health owns a stereopticon, 300 slides, 35 motion-picture films, and several portable exhibits.

Cooperation.—The State departments of health and education cooperate in carrying on their respective programs.

BUREAU OF PARISH HEALTH ADMINISTRATION

Personnel.—In 1930 the work of the bureau of parish health administration was in charge of a director whose salary was paid by the United States Public Health Service. He was assisted by two associate directors, a supervising nurse, a supervising sanitary officer, a bookkeeper, a secretary, a statistical clerk, and three colored public-health nurses supported through the Rosenwald fund.

Local health organizations.—Every parish and every municipality is required to have a board of health and all the local health organizations are subordinate to the State department of health.

TABLE 138.—Data on full-time parishes operating throughout 1929

LOUISIANA

Parish	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Rapides.....	1917	64,853	\$10,000	\$0.15	\$39,434,000	\$0.0003	Alexandria (22,473)...	1	1	1	1	1
Natchitoches.....	1921	38,496	10,000	.26	21,091,000	.0005	.....	1	1	1	1	1
De Soto.....	1921	30,852	6,500	.21	21,763,000	.0003	.....	1	1	1	1	1
Caddo.....	1921	120,529	8,500	.07	131,745,000	.0001	Shreveport (73,376)...	1	1	1	1	1
Ouachita.....	1921	51,937	20,620	.40	35,171,000	.0006	Monroe (24,690).....	1	2	3	1	1
Claiborne.....	1924	31,845	9,000	.28	21,598,000	.0004	.....	1	1	1	1	1
St. Mary.....	1924	29,530	11,000	.37	23,317,000	.0005	.....	1	1	1	1	1
Lafourche.....	1925	32,211	8,000	.25	13,428,000	.0006	.....	1	1	1	1	1
Webster.....	1925	28,982	10,000	.35	19,209,000	.0005	.....	1	1	1	1	1
Morehouse.....	1927	23,253	11,000	.47	12,268,000	.0009	.....	1	1	1	1	1
St. Martin.....	1927	21,792	10,400	.48	7,703,000	.0014	.....	1	1	1	1	1
Richland.....	1927	25,819	8,000	.31	11,049,000	.0007	.....	1	1	1	1	1
Lafayette.....	1927	38,032	11,000	.29	18,595,000	.0006	Lafayette (13,957).....	1	1	1	1	1
Assumption.....	1927	16,184	8,000	.49	8,980,000	.0009	.....	1	1	1	1	1
Caldwell.....	1927	10,342	8,000	.77	6,813,000	.0012	.....	1	1	1	1	1
Concordia.....	1927	12,745	8,000	.63	8,393,000	.0010	.....	1	1	1	1	1
La Salle.....	1927	11,485	11,000	.96	9,094,000	.0012	.....	1	1	1	1	1
Madison.....	1927	14,429	8,000	.55	10,682,000	.0007	.....	1	1	1	1	1
Avoyelles.....	1927	34,967	11,000	.31	15,100,000	.0007	.....	1	1	1	1	1
Tensas.....	1927	14,794	8,000	.54	8,270,000	.0010	.....	1	1	1	1	1
Catahoula.....	1928	12,316	8,000	.65	7,213,000	.0011	.....	1	1	1	1	1
East Carroll.....	1928	15,353	8,000	.52	7,279,000	.0011	.....	1	1	1	1	1
Franklin.....	1928	29,887	8,000	.27	13,097,000	.0006	.....	1	1	1	1	1
Iberia.....	1928	28,061	11,000	.39	19,076,000	.0006	.....	1	1	1	1	1
St. Landry.....	1928	59,239	11,000	.19	24,193,000	.0005	.....	1	1	1	1	1
West Carroll.....	1928	13,393	8,000	.60	5,479,000	.0015	.....	1	1	1	1	1
Iberville.....	1928	24,853	8,000	.32	13,035,000	.0006	.....	1	1	1	1	1
Terrebonne.....	1928	29,530	8,000	.27	11,323,000	.0007	.....	1	1	1	1	1
Pointe Coupee.....	1928	21,376	8,000	.37	11,324,000	.0007	.....	1	1	1	1	1
Total.....		887,079	274,020	.31	555,722,000	.0005		29	20	26	29	1

Full-time parish health units.—The functions of the bureau of parish health administration are the organization, development, and supervision of full-time parish health units. In 1926 an act was passed specifically authorizing the establishment of cooperative parish health units and providing for their maintenance. The State department of health sets aside funds to participate in a special budget for the bureau of parish health administration. It has been the custom from the

beginning to handle all the financial affairs of the units through the central office. All accounts are handled in accordance with fixed budgets, and although the money for payment of health-unit accounts is deposited in some local bank in each of the respective parishes, the deposit slips are sent to the central office, and a separate set of books is kept for each unit. At the close of 1930 there were 31 full-time parish health organizations.

Supervision.—All local health organizations are subordinate to the State department of health. The full-time parish health units are given close supervision, and monthly reports are required by the State department of health.

Appropriation.—The legislature made a special appropriation of \$112,000 for the biennial period 1928–1930.

BUREAU OF EPIDEMIOLOGY

Personnel.—In 1930 the position of epidemiologist was vacant, and a collaborating epidemiologist was in charge of the work. He was assisted by a stenographer and a clerk.

Reporting of diseases.—Cases of communicable diseases must be reported to the State department of health within 24 hours by physicians.

Quarantine.—Quarantine measures are under the control of the State department of health.

Smallpox vaccination.—Smallpox vaccination for school children is compulsory only by local ordinance.

Emergency fund.—There is an emergency fund of \$5,000 set aside from its budget by the State department of health for use in the event of epidemics, with the approval of the president of the board.

Venereal-disease control.—Literature on the subject of venereal-disease control is distributed through the main office of the health department. Salvarsan is issued free by the health units.

BUREAU OF TUBERCULOSIS CONTROL

Personnel.—In 1930 there was no personnel and no budget for the bureau of tuberculosis control.

Sanatoria.—In 1926 an act was passed authorizing the State department of health to assist any parish or group of parishes to establish and maintain regional or district sanatoria for tubercular cases and to establish and maintain free diagnostic clinics for tubercular patients. A State sanatorium with a capacity of 65 beds was erected in 1927. This sanatorium is maintained through an appropriation made to the State tuberculosis commission. The amount in 1930 was \$50,000. In addition to the State sanatorium, there are four private or semi-private sanatoria with a total capacity of 473 beds.

Clinics.—During 1929, two local organizations maintained two tuberculosis clinics, a total of 299,257 visits to patients being made during the year. The State department of health does not conduct any clinics.

BUREAU OF MALARIA CONTROL

Personnel.—The bureau of malaria control in 1930 was under the charge of a malariologist, assisted by a stenographer.

Activities.—The malaria-control activities carried on by this bureau are mainly educational. Demonstrations of spraying have been made and lectures have been given with motion-picture films pertaining to malaria and mosquito breeding.

OIL INSPECTION SERVICE

Personnel.—The staff of the oil inspection service in 1930 consisted of a supervisor, 14 inspectors, and a stenographer.

Inspection fees.—An inspection fee of one-eighth of 1 cent per gallon of gasoline consumed is charged. This amounts to an indefinite sum which is paid into the general fund of the State treasury.

BUREAU OF VITAL STATISTICS

Personnel.—The staff of the bureau of vital statistics in 1930 consisted of the State registrar, a supervisor, 11 clerks, 8 stenographers, and 8 special agents.

Registration district.—The city, incorporated town, or police-jury ward is the primary registration district of the State.

Local registrars.—The local registrars are appointed by the State registrar, subject to the approval of the State board of health. The local registrars receive a fee of 25 cents for each record, which is paid by the parish or town.

Registration area.—Louisiana was admitted to the registration area for deaths in 1918 and to the registration area for births in 1927.

Reporting of deaths.—The percentage of deaths reported in 1929 was not given. All deaths are reported by physicians. Deaths must be reported to the local registrar between the 1st and 10th and to the State registrar by the 15th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—The percentage of births reported in 1929 was not given. Approximately 56 per cent of the births are reported by physicians, 43 per cent by midwives, and 1 per cent by others. Births must be reported to the local registrar between the 1st and 10th and to the State registrar by the 15th of each month.

Stillbirths.—Stillbirths are reported as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns, and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means the matter is referred to the coroner or the health officer.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—Physicians and midwives are licensed by the State board of medical examiners. Undertakers are licensed by the State board of undertakers and embalmers.

BUREAU OF LABORATORIES

Personnel.—In 1930 the bureau of laboratories was in charge of the State bacteriologist, an assistant bacteriologist, two technicians, and a stenographer.

Branch laboratories.—Three branch laboratories in this State, located at Lake Charles, Monroe, and Shreveport, are financed by local authorities and the State department of health. In addition there are two branch laboratories financed by parish health departments.

Private laboratories.—The State department of health has no authority over the private laboratories in the State.

Special laboratories.—A chemical laboratory is maintained under the bureau of food and drugs, and a boat for the oyster investigations is maintained by the bureau of sanitary engineering.

Activities.—During 1929, 31,020 examinations were made by the laboratories. The main activities were Wassermann tests, water analyses, malaria blood smears, uranalyses, and diphtheria-culture examinations. A summary of the diagnostic activities of the laboratory is given on pages 98 to 99.

Fees.—No fees are charged for any service performed by the laboratory.

Biological products.—In 1923 the board appropriated a small amount of money for the purchase of biological products to be furnished free to the indigent. Since then this service has been an outstanding feature of the laboratory work. Typhoid vaccine is manufactured by the laboratory. An analysis of the distribution of biological products in 1929 is given on page 102.

BUREAU OF SANITARY ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering in 1930 consisted of a sanitary engineer and a stenographer.

Public water supplies and sewage-disposal systems.—Plans for the installation, alteration, or extension of water supplies or sewerage systems must be approved by the State department of health.

Analysis.—Water supplies are analyzed at irregular intervals.

Inspection.—Water-purification plants are inspected semiannually. Some plants are inspected four or five times a year.

Bottled waters and ice.—Regulations have been passed by the State board of health concerning the control of bottled waters and the ice industry in this State.

Camps, swimming pools, and roadside water supplies.—Rules and regulations have been passed by the State department of health concerning the sanitation of camps, swimming pools, and roadside water supplies.

Survey of housing conditions.—In 1924 the bureau of sanitary engineering assisted the bureau of food and drugs in planning and directing a survey of the housing of the colored population in 34 cities and communities, distributed in 27 parishes. The objective of the investigation was to secure a fairly complete idea of a number of items of environmental sanitation. Inspections covered ventilation, sanitary condition of premises, light, and water supply.

Oyster-bed sanitation.—Following a preliminary survey of the Louisiana oyster beds it was determined that the limits of pollution in the streams should be definitely ascertained and other necessary investigations and inspections made which would enable the board of health to issue authoritative certificates to the oyster shippers and dealers of the State. A specially designed boat has been built for this purpose and will be used also for studies in stream pollution and for health work in heretofore inaccessible communities and areas along the coast.

BUREAU OF CHILD HYGIENE

Organization.—Organized as a school and home division in 1910, the scope of activities of the bureau of child hygiene has extended until the efforts of the bureau now include special work in every phase of child health from instruction in prenatal care to supervision throughout the period of child life. It was not until 1923 that a public-health nurse was assigned to this bureau. Work was then undertaken in the weighing and measuring of children, with such examinations as the nurse could make to detect defects of vision, hearing, and teeth.

Personnel.—In 1930 there was no director for this bureau. The personnel consisted of an assistant director, a stenographer, a clerk, two exhibit clerks, and a motion-picture operator.

Prenatal and maternal hygiene.—No prenatal clinics have been established.

Midwifery.—In rural communities where there are few doctors the midwife is the only person to whom women can look for care during confinement. Comparatively few of the 2,000 midwives in the State have had opportunity for training, and simple instructions are offered to them individually or in classes.

Ophthalmia neonatorum.—The use of silver nitrate in the eyes of the new-born is required by law. The State department of health provides silver-nitrate ampoules free of charge.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are not licensed by the State board of health.

Infant and preschool hygiene.—During 1929 all preschool clinics were temporarily suspended.

School hygiene.—School hygiene is carried on by local authorities, the bureau of child hygiene assisting in some cases.

Public-health nursing.—Nursing activities were temporarily suspended during 1930.

Eligibility requirements.—The State and local public health nurses must be registered nurses with special training in public-health nursing.

BUREAU OF MENTAL HYGIENE

Personnel.—The personnel of the bureau of mental hygiene in 1930 consisted of a director, who was assisted by a stenographer.

Activities.—The activities of this bureau are conducted along educational lines. The school children of the parish health units have been examined, and recommendations for institutional or medical care have been made.

BUREAU OF FOOD AND DRUGS

Personnel.—In 1930 the personnel of the bureau of food and drugs consisted of the State analyst who is in charge of the bureau, 2 chemists, a field bacteriologist in charge of the dairy work, a chief inspector, a medical inspector to examine persons who handle food, 2 veterinarians, 44 dairy, food, and drug inspectors, and 7 stenographers and clerks.

Activities.—The enforcement of the food and drug law, which is copied after the Federal food and drug act, is intrusted to the State department of health.

Food handlers.—The medical examination of food handlers is required by law, and permits are necessary to run places where food is handled.

Inspection.—The inspection of food, cold-storage plants, and slaughterhouses is required by law.

Food and drug laboratory.—A food and drug laboratory is maintained by the bureau of food and drugs.

Shellfish.—The prevention of the pollution of shellfish is a function of the bureau of sanitary engineering.

Milk laws.—The enforcement of the milk laws is intrusted to this bureau. Pasteurization is defined, and milk so treated is required to be labeled "pasteurized." Dairies are licensed, and laboratory examinations are made by the State department of health.

Veterinary service.—The regulation for the testing of dairy cattle became effective in 1923, and stringent regulations in accordance with the United States Public Health Service milk regulations have been passed. This work is carried on by a veterinary and an assistant under the supervision of this bureau.

TABLE 139.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

LOUISIANA

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....			\$161,950	\$147,153	\$121,947	\$197,070
State legislative budget, plus fees.....			161,950	147,153	121,947	192,070
Bureau of administration.....	\$30,000	\$30,000	30,000	60,000	100,000	100,000
Oil-inspection service.....			32,340	32,756	32,388	34,625
Bureau of vital statistics.....			10,613	14,153	14,217	12,403
Bureau of laboratories.....			6,800	6,859	7,000	6,900
Bureau of food and drugs.....			15,242	23,169	26,903	2,679
Bureau of sanitary engineering.....					2,500	2,500
Bureau of parish-health administration.....						
Full-time parish units.....						
Bureau of child hygiene.....						
Bureau of malaria control.....						
Bureau of epidemiology.....						

Bureau	1921	1922	1923	1924	1925
Total budget.....	\$196,274	\$220,311	\$255,814	\$282,570	\$312,166
State legislative budget, plus fees.....	187,257	202,711	237,714	243,090	270,683
Bureau of administration.....	100,000	100,000	100,000	75,000	75,000
Oil-inspection service.....	34,768	35,442	39,244	44,045	48,934
Bureau of vital statistics.....	13,924	16,444	18,648	18,924	18,211
Bureau of laboratories.....	7,109	7,855	8,133	9,772	13,882
Bureau of food and drugs.....	25,270	23,385	24,977	41,459	29,424
Bureau of sanitary engineering.....	2,500	2,600	6,000	6,600	10,759
Bureau of parish-health administration.....	6,000	6,000	5,500	5,000	5,000
Full-time parish units.....	23,680	58,200	64,400	78,717	77,328
Bureau of child hygiene.....				39,260	36,660
Bureau of malaria control.....					
Bureau of epidemiology.....					

Bureau	1926	1927	1928	1929 ¹	1930 ¹
Total budget.....	\$422,843	\$476,007	\$494,332	\$409,590	\$307,071
State legislative budget, plus fees.....	387,863	374,077	354,332	300,000	306,000
Bureau of administration.....	75,000	75,000	75,000		
Oil-inspection service.....	59,458	44,389	24,789		
Bureau of vital statistics.....	20,882	21,790	17,677		
Bureau of laboratories.....	17,056	18,174	15,555		
Bureau of food and drugs.....	37,657	34,312	25,149		
Bureau of sanitary engineering.....	3,991	4,406	4,837		
Bureau of parish-health administration.....	5,000	19,800	18,200		
Full-time parish units.....	90,800	206,607	287,220		
Bureau of child hygiene.....	32,662	41,606	26,750		
Bureau of malaria control.....	4,800	4,800	4,800		
Bureau of epidemiology.....		5,400			

¹ No specific appropriations or allotments made by bureaus.

² Rockefeller Foundation. (See Table 140.)

³ U. S. Public Health Service funds included. (See Table 140.)

⁴ U. S. Children's Bureau funds included. (See Table 140.)

⁵ Local funds included.

TABLE 140.—*Total appropriations for State department of health, by years*

LOUISIANA

Year	Total appropriation	State legislature	U. S. Public Health Service	U. S. Children's Bureau	Oil inspection	Rockefeller Foundation	Kerosene tax
1917	\$161,950	\$50,000			\$111,950		
1918	147,153	50,000			97,153		
1919	121,974	50,000			71,974		
1920	197,070	100,000			92,070	\$5,000	
1921	196,274	100,000	\$350		87,257	8,667	
1922	220,311	100,000	2,100		102,711	15,500	
1923	255,814	100,000	2,100		137,714	16,000	
1924	272,570	75,000	2,100	\$22,130	168,090	15,250	
1925	312,166	75,000	2,700	29,630	195,683	9,153	
1926	422,843	75,000	2,700	22,130	229,269	10,150	\$83,594
1927	476,007	75,000	42,450	22,130	70,131	37,350	228,946
1928	494,332	75,000	66,800	14,760	41,752	58,440	237,580
1929	409,590	300,000	63,200			46,390	(1)
1930	397,071	306,000	60,700			30,371	(1)

¹ Allocated to the general State treasury.

MAINE

PUBLIC HEALTH COUNCIL

Organization.—The public-health council consists of the commissioner of health and five other members, two of whom are physicians and one a dentist. All are appointed by the governor, with the advice and consent of the executive council.

Term of office and compensation.—The members of the public-health council serve for a period of five years, the term of one member expiring each year. They receive \$5 per diem while in conference and necessary traveling expenses while in the performance of their official duties.

Meetings.—At least one meeting is held each month and special meetings may be called by the commissioner or at the request of three members of the council.

EXECUTIVE OFFICER

Legal qualifications.—The State commissioner of health must be a physician skilled in sanitary science and experienced in public-health work. He is appointed by the governor, with the approval of the executive council. He may be appointed from or outside the public-health council and is a member and chairman of the council.

Term of office and compensation.—The State health commissioner serves for six years and receives a yearly salary of \$5,000. Necessary traveling expenses of the commissioner within the State are paid; an order from the governor and executive council is necessary for travel outside the State.

POWERS OF THE STATE HEALTH DEPARTMENT

The State commissioner of health is the executive officer of the State department of health. His powers and duties are to administer

Maine - Organization of the State Department of Health in 1930

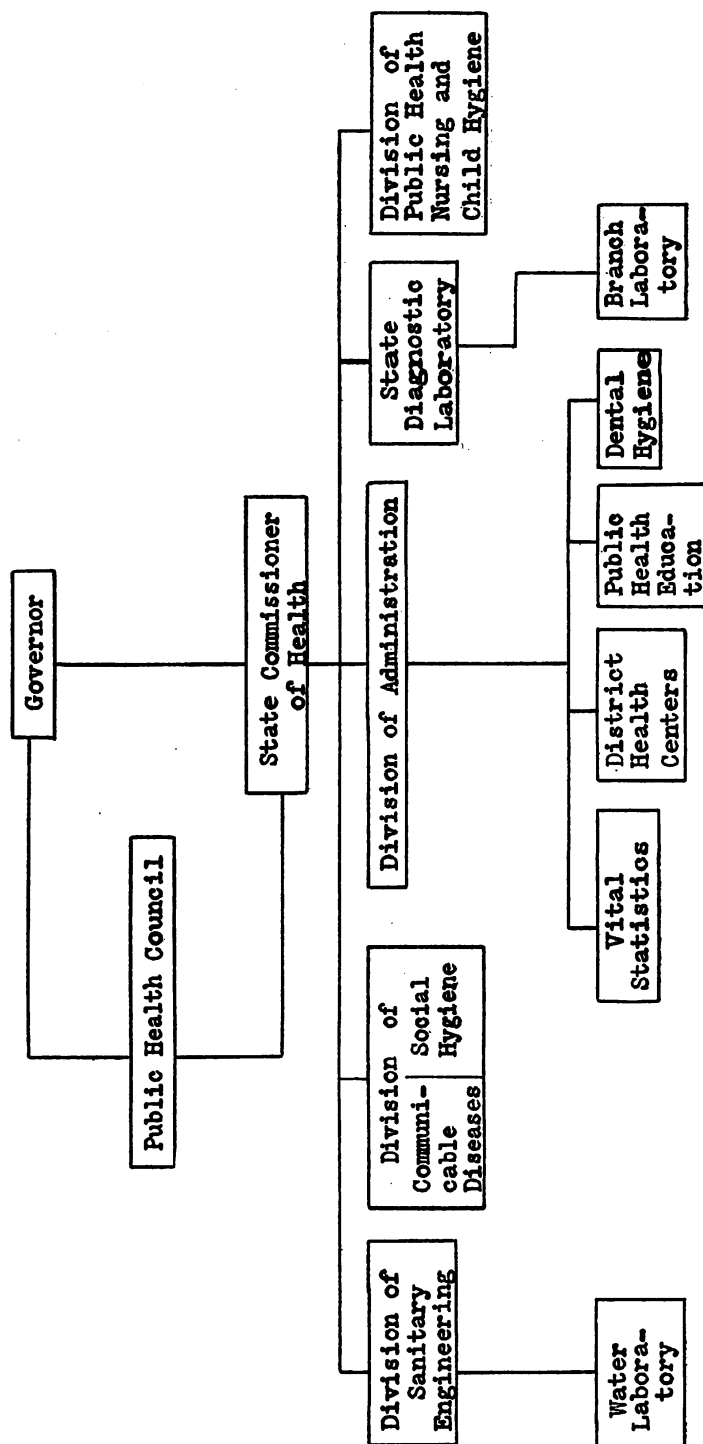


FIGURE 36

the laws relative to health and sanitation and the regulations of the department; to prepare rules and regulations with the approval and advice of the public health council; to appoint and remove directors of divisions, district health officers, inspectors, and other employees; and to fix their compensation within the limits of the appropriation. The State department of health has quasi judicial, legislative, and executive power in regard to sanitation in general, communicable diseases, and quarantine. Nuisances are under the control of the local boards of health, the supervision of water pollution and sewage disposal are under the control of the public-utilities commission, milk supplies and the control of food adulteration are functions of the State department of agriculture, and enforcement of the medical practice law is under the control of the State board of registration in medicine. The State department of health has no supervision over midwifery.

APPROPRIATIONS

The State legislature makes an annual appropriation to the State department of health. This appropriation is divided into general office expenses and salary and clerk hire. These two appropriations cover all the expenses of the divisions of administration, communicable diseases, diagnostic laboratory, sanitary engineering, vital statistics, and dental hygiene. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 141.—*Divisions of the State department of health in 1930*¹

MAINE

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$60,080	4	\$5,000	\$3,484	\$8,484
District health centers.....	40,000	7	{ 3,000 3,300 }		22,200
Division of communicable diseases.....	(2)	3	(4)	1,884	1,884
Division of social hygiene.....	14,170	11	3,500	7,634	11,134
Division of vital statistics.....	(2)	6	(6)	5,200	5,200
Division of sanitary engineering.....	(2)	9	3,800	9,568	13,368
Division of public-health nursing and child hygiene..	29,580	13	2,700	18,124	20,824
Diagnostic laboratory.....	(1)	5	3,900	4,732	8,632
Division of dental hygiene.....	(3)	1	2,000		2,000
Branch laboratory.....	2,800	1	2,000		2,000
Aid to typhoid carriers.....	5,000				

¹ Total appropriation, \$151,330; total appropriation exclusive of tuberculosis sanatoria funds, \$151,330; State legislative appropriation, \$145,500.

² Under division of administration.

³ The director of the division of social hygiene is included.

⁴ The chief of the division of social hygiene is the director.

⁵ The commissioner is included.

⁶ The commissioner is the State registrar.

DIVISION OF ADMINISTRATION

Personnel.—The personnel of the division of administration in 1930 consisted of the State commissioner of health, a chief clerk, a secretary, and an assistant.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Warrants approved by the commissioner and State auditor are signed by the governor and paid by the State treasurer.

Purchases.—Supplies are purchased by the State department of supplies. However, the commissioner is allowed to order laboratory supplies direct from manufacturers.

District health centers.—The State is divided into seven health districts. A health officer for each district is appointed by and works under the supervision of the State commissioner of health. All the rural health work fostered by the State is carried on by the district health officers. They act in an advisory capacity toward the local health officers, especially in regard to the control of communicable diseases.

Special appropriation.—A special appropriation of \$40,000 is provided for the work of the district health centers.

Local health organizations.—Each city and town is authorized to employ a local health officer. He is appointed by the officers of the municipality, subject to the approval of the State commissioner of health. He may be employed to devote a part or all of his time to his office.

Supervision.—The local health officers carry on their duties subject to the control and direction of the State department of health.

Tuberculosis sanatoria.—Three State tuberculosis sanatoria, with a total capacity of about 400 beds, are conducted by a tuberculosis commission. A special legislative appropriation of \$398,750 was provided in 1930.

Tuberculosis activities.—The State department of health carries on an educational tuberculosis program through the district health officers and the division directors.

Publicity.—The publicity of the State department of health is under the direction of the division of administration.

Press service.—The newspapers cooperate with the health department with regard to press service.

Bulletins.—No bulletins were published during 1929, but pamphlets are issued from time to time.

Equipment.—The State department of health owns 7 stereopticons, about 3,300 slides, 11 motion-picture machines, 100 films, an attractoscope, an automatic projectoscope, and a translux projector.

Cooperation.—The State departments of health and of education cooperate in carrying on their programs.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—The director of the division of communicable diseases serves also as the director of the division of social hygiene. During 1930 his staff included a stenographer and an assistant who devoted part time to this division. The director acts in an advisory capacity toward the district and local health officers.

Reporting of diseases.—The local health officers report cases of communicable diseases each week to the State department of health. An outbreak of disease is reported immediately.

Quarantine.—The enforcement of quarantine measures is under the control of the local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—Formerly an emergency fund of \$2,000 was provided, but this has now been merged into the general appropriation fund.

DIVISION OF SOCIAL HYGIENE

Personnel.—The staff of the division of social hygiene in 1930 consisted of the director, who is also the director of the division of communicable diseases; an assistant director; a stenographer; and eight clinic chiefs.

Activities.—The reporting and treatment of cases of venereal disease are required by law. The State department of health quarantines, if necessary, through the local health officers.

Clinics.—Eight clinics for treatment of venereal disease are maintained under the supervision of the State department of health.

Treatments.—During 1929, 8,114 free treatments, of which 3,431 were salvarsan, were administered. The State department of health supplies physicians with drugs for indigent patients.

Educational program.—The State department of health, in cooperation with the Maine Medical Association, carries on an educational program for the control of venereal disease. Lectures accompanied by moving pictures are given by division directors to colleges, high schools, etc.

DIVISION OF VITAL STATISTICS

Personnel.—The commissioner of health is the State registrar, and the division of vital statistics functions as part of the division of administration. During 1930 the State registrar of vital statistics was aided by a director and four clerks.

Registration districts.—Each city and town is a primary registration district.

Local registrars.—The town clerk is ex officio the local registrar and receives from the town a fee of 25 cents for each record issued. In cities the local registrar is appointed by the municipal officers.

Registration area.—Maine was admitted to the registration area for deaths in 1900 and to the registration area for births in 1915.

Reporting of deaths.—In 1929, 98 per cent of the deaths occurring in the State were reported, the majority by undertakers. Deaths must be reported to the local registrar at once in order to obtain a burial permit and to the State registrar between the 10th and the 15th of the month.

Legal standards.—The model law is not used, but an adequate law has been adopted. The standard certificate is not used in this State. The international list of the causes of death has been adopted.

Reporting of births.—In 1929, 95 per cent of the births occurring in the State were reported, the majority by physicians. Births must be reported to the local registrar within six days after birth and to the State registrar between the 10th and the 15th day of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local organizations provide the postage.

Unlawful death.—In case death is thought to have been caused by unlawful means, the matter is reported to the medical examiner.

Burial permits.—Burial permits are necessary and are issued by the town or city registrar.

Licensing.—Physicians are licensed by the State board of registration of medicine and undertakers are licensed by the State board of embalmers. Midwives are not licensed.

STATE DIAGNOSTIC LABORATORY

Personnel.—The personnel of the State diagnostic laboratory in 1930 included the director, a bacteriologist, a stenographer, and two assistants. The central laboratory does practically all of the laboratory work for 14 State institutions.

Branch laboratory.—A branch laboratory, located at Caribou, is maintained by a special State appropriation of \$2,500. The quarters are furnished by the local hospital.

Private laboratories.—The State department of health has no supervision over the private laboratories in the State.

Special laboratory.—A laboratory for the analyses of water samples is conducted by the division of sanitary engineering. Milk analyses are made by the department of agriculture.

Activities.—During 1929, 34,835 examinations were made. This includes 15,378 analyses of water made by the special laboratory under the division of sanitary engineering. The examinations made by the diagnostic laboratory included Kahn tests, examinations of typhoid cultures, tuberculosis sputa, diphtheria cultures, and patho-

logical tissues. A summary of the diagnostic activities is given on pages 98 to 99.

Fees.—Charges are made for special examinations, such as urinalyses, \$2, for guinea-pig inoculations, \$2, and autogenous vaccines, \$5. The money received is turned over to the State treasurer.

Biological products.—Biological products are not manufactured by the laboratory nor issued by the State department of health.

Research.—During 1929 special work on undulant fever was carried on by the diagnostic laboratory.

DIVISION OF SANITARY ENGINEERING

Personnel.—In 1930 the staff of the division of sanitary engineering included a sanitary engineer, an assistant, three chemists, and four stenographers.

Public water supplies and sewage-disposal systems.—Plans for the installation of public water supplies or sewage-disposal systems must be submitted to the State department of health for approval. Standards for public water supplies must correspond with those of the United States Public Health Service.

Bottled waters.—The State department of health may require samples of water sold for domestic purposes and may prohibit the sale under certain circumstances.

Analyses.—The water supplies of 70 towns and municipalities are analyzed monthly, and of 100 others, quarterly.

Water laboratory.—A laboratory for the analysis of water is maintained by this division.

Inspection.—Water-purification plants are inspected at least once a year and oftener if necessary.

Ice industry.—Ice must meet the qualifications required for public water supplies.

Camps, swimming pools, etc.—Rules and regulations concerning the sanitation of camps and swimming pools have been passed by the State department of health. The division of sanitary engineering has charge of the inspection and licensing of roadside eating places, lodging places, camps, summer hotels, etc. During 1929, 866 camps and 2,481 tourist houses were inspected.

Roadside water supplies.—Analysis of the drinking water of public eating places is required by law. During 1929 the division tested the water at over 3,500 wayside eating places, hotels, tourist and summer camps, etc.

Activities.—Two activities were added in 1929 to the duties of this division, namely, the extermination of mosquitoes and the regulation of the manufacture of bedding.

DIVISION OF PUBLIC-HEALTH NURSING AND CHILD HYGIENE

Personnel.—The staff of the division of public-health nursing and child hygiene in 1930 consisted of a director, a field supervisor of nurses, nine nurses, and two stenographers.

Maternal hygiene.—No special activities in maternal hygiene have been carried on by this division, and no prenatal clinics have been established. However, 570 home visits to prenatal cases were made in 1929.

Midwifery.—Facilities for instruction of midwives are lacking. Although the number of midwives is growing steadily smaller, the group still needs consideration.

Ophthalmia neonatorum.—The use of prophylactic drops in the eyes of the new born is required.

Lying-in hospitals and orphanages.—The lying-in hospitals of the State, which have a total capacity of 586 beds, are licensed by the department of health. Orphanages are licensed by the department of public welfare.

Infant and preschool hygiene.—Medical examination of children entering school is urged. During 1929, 225 preschool conferences were held and 1,599 children examined.

School hygiene.—Medical examinations of school children are made by physicians appointed by the superintendents and school committees.

Public-health nursing.—Standards of public-health nursing have steadily improved. The director of this division supervises the nursing service. There are now 149 public-health nurses in the State; 9 of these are employed exclusively by the State department of health.

Eligibility requirements.—Candidates for State public-health nurses must be graduates of a recognized hospital, be registered in the State, hold a certificate from a course in public-health nursing, and have had some experience in prenatal, maternal, and infancy work. Requirements for local public-health nurses are the same except that a local public-health nurse may have gained experience under supervision.

DIVISION OF DENTAL HYGIENE

Personnel.—A director conducted the activities of the division of dental hygiene in 1930. The work of the division is chiefly educational. The division holds lectures, demonstrations, and surveys, together with the examination of school children.

TABLE 142.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

MAINE

Divisions	1915	1916	1917	1918	1919	1920
Total budget.....	\$20,891	\$22,147	\$25,817	\$30,975	¹ \$50,911	¹ \$92,789
State legislative budget.....	20,500	21,000	25,000	30,000	46,000	46,000
Division of social hygiene.....		2,000	8,000	18,987	¹ 14,940	¹ 73,079
Division of administration ²					41,624	48,846
Division of public-health nursing and child hygiene.....						
District health centers.....						

Divisions	1921	1922	1923	1924	1925
Total budget.....	² \$46,311	¹ \$91,228	¹ \$98,177	¹ \$119,258	¹ \$118,729
State legislative budget.....	38,000	91,000	96,000	117,000	117,000
Division of social hygiene.....	12,311	¹ 10,228	¹ 12,177	¹ 16,258	¹ 15,729
Division of administration ³	19,000	46,000	46,000	53,000	53,000
Division of public-health nursing and child hygiene.....			5,000	10,000	10,000
District health centers.....	15,000	35,000	35,000	38,000	38,000
Branch laboratory.....				2,000	2,000
Aid to typhoid carriers.....					

Divisions	1926	1927	1928	1929	1930
Total budget.....	\$117,692	\$119,741	⁴ \$142,389	⁴ \$147,228	\$151,330
State legislative budget.....	117,500	117,500	125,500	125,500	145,500
Division of social hygiene.....	14,192	14,571	14,389	14,154	14,170
Division of administration ³	53,000	54,670	59,574	59,574	60,080
Division of public-health nursing and child hygiene.....	10,000	10,000	⁴ 25,000	⁴ 30,000	29,580
District health centers.....	38,000	38,000	38,000	38,000	40,000
Branch laboratory.....	2,500	2,500	2,500	2,500	2,500
Aid to typhoid carriers.....			3,000	3,000	5,000

¹ Federal funds for venereal-disease control included. (See Table 143.)² This appropriation is for 6 months ending June 30, 1921, due to change of fiscal year beginning July 1, 1921, to June 30, 1922.³ These amounts cover all expenses of the divisions of administration, communicable diseases, diagnostic laboratory, sanitary engineering, vital statistics, and dental hygiene.⁴ U. S. Children's Bureau funds included. (See Table 143.)TABLE 143.—*Total appropriations for State department of health, by years*

MAINE

Year	Total appropriation	Source of funds and amounts					
		State legislature	Bureau of the census	State contingent fund	Venereal-disease Federal funds	United States Children's Bureau	Towns ¹
1915.....	\$20,891	\$20,500	\$391				
1916.....	22,147	21,000	1,147				
1917.....	25,817	25,000	817				
1918.....	30,975	30,000	850	\$125			
1919.....	50,911	46,000	(²)	3,696	\$915		
1920.....	92,789	46,000	(²)	43,345	3,443		
1921.....	38,000	38,000	(²)				
1922.....	99,123	91,000	(²)		8,123		
1923.....	97,684	96,000	(²)	5,049	1,635		
1924.....	115,813	117,000	(²)	86	727		
1925.....	115,182	117,000	(²)		182		
1926.....	117,620	117,500	(²)				\$120
1927.....	119,741	117,500	524				1,717
1928.....	142,389	125,500	803			\$15,000	1,086
1929.....	147,228	125,500	857			20,000	871
1930.....	151,330	145,500	793				\$4,580

¹ Appropriated for child-welfare work.² No fees from the bureau of the census are credited for the years 1919 to 1926, as the governor and council ruled that they should not be added to the total appropriation and must go into the State contingent fund.

MARYLAND

STATE BOARD OF HEALTH

Organization.—The State Board of Health of Maryland is composed of nine members, four of whom are physicians, one an experienced civil engineer, one a certified pharmacist, and one a dentist. The remaining two members are the attorney general of the State and the commissioner of health, ex officio, of the city of Baltimore. The governor designates one of the physicians as the chairman of the board, and he becomes the director of health.

Term of office and compensation.—The first seven members are appointed by the governor and serve for six years; the terms of two members expire every other year. The members receive \$15 per day when in session and traveling expenses when on official duty outside of Baltimore.

Meetings.—The State board of health meets on the third Thursday of each month. Special meetings may be called at the discretion of the chairman.

Executive committee.—An executive committee composed of three members elected by the State board of health meets once a month to review all the activities of the State department of health and to make recommendations to the State board of health.

EXECUTIVE OFFICER

Legal qualifications.—The governor chooses one of the four physicians on the State board of health as the director of health. He serves also as chairman of the State board of health. He must be a physician skilled in public health and hygiene.

Term of office and compensation.—The term of office of the director of health is six years. He receives a yearly salary of \$7,500 and his traveling expenses while on official business outside of Baltimore.

POWERS AND DUTIES OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State board of health has no quasi judicial power but may exercise legislative and executive control over sanitary matters in general, including water and sewage, milk supplies, food adulteration, nuisances, communicable diseases, quarantine, and the practice of midwifery. Enforcement of the medical practice law is under the control of the State board of medical examiners. The executive power of the State department of health is vested in the State board of health; in the absence of the board, the director of health assumes authority.

APPROPRIATIONS

The State legislature meets in January of odd years. Annual appropriations are made by items of salaries, wages, special pay-

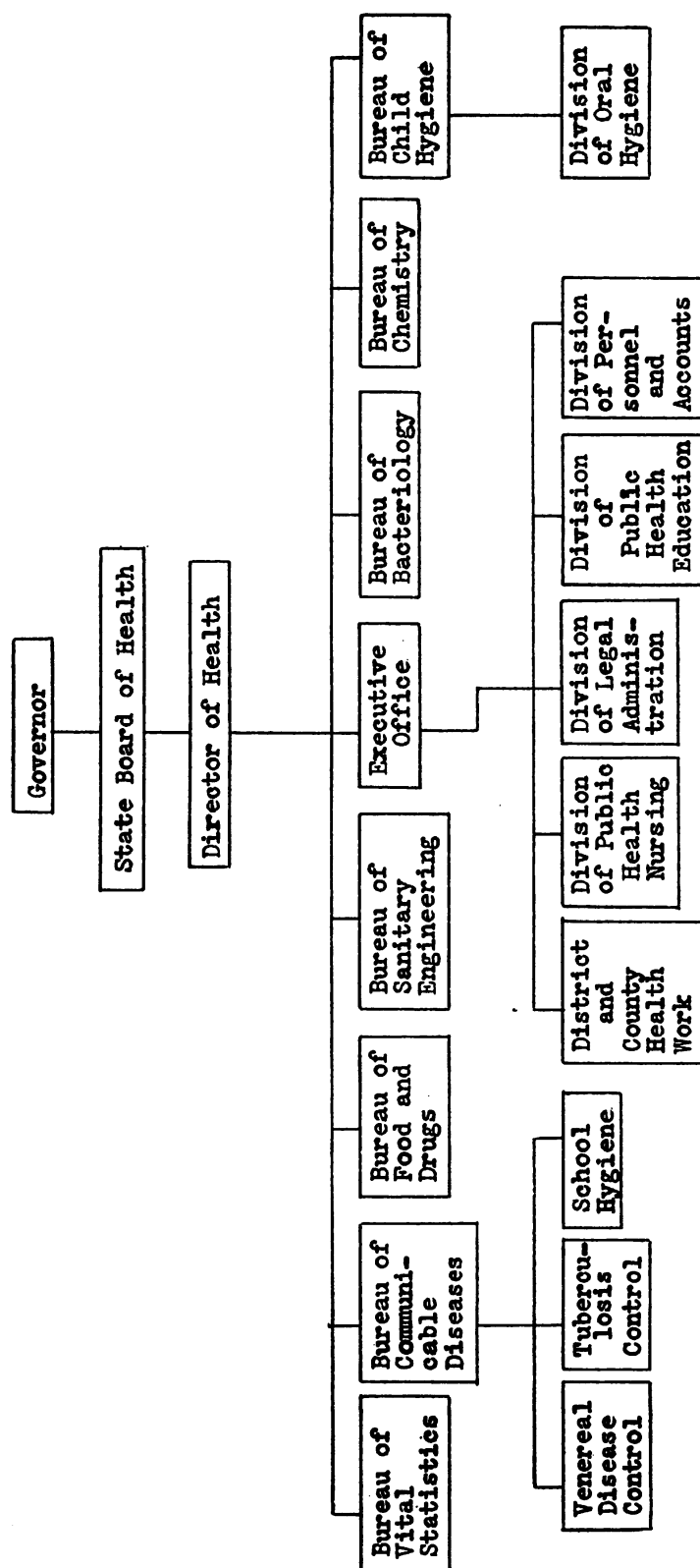
Maryland - Organization of the State Department of Health in 1930

FIGURE 37

ments, contractual services, supplies, materials, equipment, and extraordinary expenses. The fiscal year of the health department ends September 30.

TABLE 144.—*Bureaus and divisions of the State department of health in 1930*¹

MARYLAND

Bureaus and divisions	Total budgets by bureaus and divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Executive office.....	\$31,155	13	\$7,500	\$12,380	\$19,880
Division of personnel and accounts.....	56,049	15	4,000	17,760	21,760
Bureau of communicable diseases.....	60,711	43	4,000	38,173	42,173
Bureau of vital statistics.....	22,436	11	4,000	13,260	17,260
Bureau of bacteriology.....	39,792	22	4,000	22,086	26,086
Bureau of chemistry.....	15,078	6	4,000	8,724	12,724
Bureau of sanitary engineering.....	51,859	14	4,000	29,144	33,144
Bureau of child hygiene.....	14,586	3	4,000	5,020	9,020
Division of oral hygiene.....	10,000	2	3,600	900	4,500
Bureau of food and drugs.....	39,683	15	4,000	24,240	28,240

¹ Total appropriation, \$523,172; total appropriation exclusive of tuberculosis-sanatoria funds, \$523,172; State legislative appropriation, \$429,692.

EXECUTIVE OFFICE

Personnel.—The personnel of the executive office in 1930 consisted of the director of health and a full-time secretary. The public-health nurses, the deputy State health officers, the divisions of personnel and accounts, legal administration, public-health education, and oral hygiene are also part of the executive office. These divisions are described below. The salaries paid board members when in session are included in the expenses of the executive office.

Civil service.—All employees of the State department of health except the director of health are civil-service appointees. A change in State administration does not affect the tenure of personnel of the department.

Activities.—Activities carried on directly by the executive office include district and county health work, public-health nursing, industrial hygiene, and public-health education.

District and county health work.—District and county health work are under the direct supervision of the director of health.

Sanitary districts.—The State has been divided into 10 sanitary districts. The State board of health appoints for each district a deputy State health officer who lives in and directly controls all matters pertaining to the health of his district. In 1929 there were 16 deputy and assistant deputy State health officers.

County health units.—The State laws permit the counties to employ full-time health officers. At the close of 1930 there were 14 full-time county health units.

Appropriation.—An appropriation of \$115,000 for the deputy State health officers has been made and used to supplement the budgets of the county health department.

Supervision.—The State department of health acts in an advisory capacity only toward the local organizations except when the director of health assumes jurisdiction over any health condition. In all cooperative undertakings the State department of health has control of all officials. A county health officer may be removed for cause by the State board of health.

TABLE 145.—Data on full-time counties operating throughout 1929

MARYLAND

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel		
								Health officer	Nurse	Clerk
Allegany.....	1922	77,462	\$23,055	\$0.30	\$63,841,000	\$0.0004	Cumberland (36,929) ..	1	7	1
Montgomery.....	1923	47,503	12,200	.26	39,203,000	.0003	.....	1	3	1
Baltimore.....	1924	118,917	33,180	.28	119,373,000	.0003	.....	1	4	1
Calvert.....	1924	9,546	7,680	.80	3,789,000	.0020	.....	1	2	1
Carroll.....	1924	35,640	14,340	.40	33,120,000	.0004	.....	1	2	1
Frederick.....	1924	54,251	11,020	.20	43,869,000	.0003	Frederick (14,081) ..	1	3	1
Prince Georges...	1927	58,417	10,330	.18	33,079,000	.0003	.....	1	2	1
Talbot.....	1927	18,549	8,255	.45	15,705,000	.0005	.....	1	1	1
Harford.....	1928	31,338	10,230	.33	27,951,000	.0004	.....	1	2	1
Total.....		451,623	130,290	.29	379,930,000	.0003	.....	9	26	9

Division of public-health nursing.—The division of public-health nursing was discontinued in 1925. There are 10 nurses whose salaries are paid entirely by the State department of health and 11 nurses whose salary is paid in part by the department.

Supervision of nurses.—All nurses are supervised by deputy or local health officers.

Eligibility requirements.—A State public-health nurse in Maryland must have graduated from an accredited training school for nurses, have registered with the State, and have had experience in public-health nursing.

Number of nurses.—Every county has one or more public-health nurses. In 1929, 50 nurses were actively engaged in public-health work in the State. Their salaries were paid by funds from the State, county health associations, State tuberculosis association, Red Cross chapters, hospital boards, county school boards, or county and town officials.

Public-health education.—Public-health education is directed by an official included on the staff of the executive office.

Bulletin.—A public-health bulletin is published monthly and newsletters are issued once each week.

Publicity.—The publicity activities of the State department of health are conducted by the director of public health.

Press service.—Regular news-bulletins are sent to county newspapers and to a selected group of persons interested in public health.

Equipment.—The State department of health has a stereopticon, 200 slides, 15 motion-picture films, 4 portable moving-picture projectors, 2 stereomatographs, and exhibits and posters.

Cooperation.—The State departments of health and of education cooperate in conducting the medical inspection of school children.

Division of legal administration.—In 1930 the personnel of the division of legal administration consisted of a full-time attorney, a full-time secretary, and a bedding inspector.

Activities.—The division of legal administration enforces the provisions of the laws concerning the manufacture or sale of mattresses, bedding, etc.

Permits and tags.—A numbered permit which costs \$50, is required for the use of a sterilization or disinfection process. Tags bearing the name of the maker, remaker, or renovator of mattresses are required and are supplied by the director of health in quantities of not less than 1,000 tags, at a cost of \$10. The division of legal administration is supported through the sale of these permits and tags.

DIVISION OF PERSONNEL AND ACCOUNTS

The division of personnel and accounts is a part of the executive office, to which certain expenses, common to all bureaus are charged.

Personnel.—In 1930 the personnel of the division of personnel and accounts consisted of a chief, a secretary, a bookkeeper, 6 clerks, 2 multigraph operators, 2 automobile mechanics, a telephone operator, and an elevator operator.

Activities.—The division comprises, in addition to the accounting division, a property division, a printing division, and an automobile-repair shop.

Appointments.—The chief of the division cooperates with other staff officials in the employment of the nontechnical personnel. Appointments are made from lists of eligibles prepared by the State employment commissioners.

Disbursement of funds.—The State department of health has an account with the State comptroller to the amount of the appropriation. Monthly statements of expense are completed and forwarded to the comptroller, who, after an audit of the vouchers, remits to the department an amount equal to that of the expenses incurred. This money is deposited in a Baltimore bank and checked against for all expenses. A cash expense account of \$300 is allowed to pay current expenses.

such as postage, freight, express, etc. This cash account is also reimbursed in the amount of expenditures monthly. The chief of the division of personnel and accounts disburses the funds after they have been approved by the director of health.

Purchases.—All supplies are purchased through the State purchasing bureau.

BUREAU OF COMMUNICABLE DISEASES

Personnel.—The staff consisted in 1930 of a director, an epidemiologist, a diagnostician, a statistical clerk, a secretary, and four clerks.

Reporting of diseases.—Cases are reported daily to the State department of health by the local health officers.

Quarantine.—In case of failure on the part of local health officials to act, the State department of health assumes control in regard to quarantine measures.

Smallpox vaccination.—In Maryland smallpox vaccination is compulsory for school children.

Emergency fund.—An emergency fund of \$10,000 may be expended at the discretion of the State board of health, under the direction of the governor, in cases of severe outbreaks and epidemics.

Tuberculosis control.—The control of tuberculosis is a function of the bureau of communicable diseases. The State program includes hospitalization and proper care in the home. Cases of the disease must be reported at once. Prophylactic supplies are distributed for individual use. There are no special nurses for tuberculosis work, but the 50 State nurses devote part of their time to this work.

Clinics.—During 1929 the State department of health conducted 222 tuberculosis clinics at 22 stations and treated 3,338 patients.

Tuberculosis sanatoria.—The seven State sanatoria are conducted by boards appointed by the governor. They have a total capacity of 1,005 beds. There are also a Federal sanatorium with 12 beds, a county sanatorium with 21 beds, a municipal sanatorium with 200 beds, and four semiprivate or private sanatoria with a total of 198 beds.

Venereal-disease clinics.—In the larger towns the State department of health has established clinics which are held at definite times; in the smaller places one or more physicians have been supplied with venereal disease treatment outfits upon the agreement that all cases of venereal diseases, indigent or otherwise, be treated. In 1929 there were 16 clinics under the supervision of the State department of health.

Reporting of cases.—Cases of venereal disease must be reported by the name, attendance at clinics, and treatment of infected persons.

Treatment.—A total of 89,198 treatments, of which 21,974 were salvarsan, were given in 1929. Indigents receive free treatments.

Educational activities.—Illustrated lectures on venereal diseases are given, and pamphlets are distributed.

School hygiene.—School-hygiene work is handled by the bureau of communicable diseases. Local communities act under a permissive county bill. It is impossible to report the actual amount of work accomplished. One feature of the work is the follow-up of cases by the 50 State nurses to see that corrections are made. No specialized school nursing is undertaken in Maryland, but a general public-health nursing program is carried on. Every nurse devotes a considerable portion of her time to corrective work. This work is financed by the State, county, and local health organizations, the Maryland Tuberculosis Association, and the Red Cross.

BUREAU OF VITAL STATISTICS

Personnel.—The director of health is ex officio the State registrar of vital statistics. The bureau of vital statistics was, however, in 1930, under the direction of an official who gave all of his time to this activity. He was assisted by a secretary, a statistical clerk, and eight clerks.

Registration district.—The election districts into which the State is divided comprise the registration districts.

Local registrars.—The health officers of the counties are ex officio county registrars. They may designate competent persons to act as local registrars. Health officers of towns with a population of 5,000 or more are ex officio local registrars. In towns of less than 5,000 population the mayor appoints the local registrar. The local registrars are paid a fee of 25 cents by the county commissioners for each complete certificate issued and are penalized 12½ cents for each incomplete or belated certificate issued.

Registration area.—Maryland was admitted to the registration area for deaths in 1906 and to the registration area for births in 1916.

Reporting of deaths.—In 1929, 99 per cent of all deaths occurring in the State were reported. Practically all deaths are reported by physicians, since midwives and undertakers are not authorized to sign death certificates. Reports must be received by local registrars before the disposition of the body and by the State registrar on or before the 5th day of each month.

Legal standards.—The model law has been revised for use in this State. The standard certificate and the international list of the causes of death have been adopted.

Reporting of births.—In 1929, 97 per cent of births occurring in the State were reported; of these, physicians reported 82.9 per cent, midwives 16.9 per cent, and others 0.1 per cent. Births are reported to the local registrars within four days and to the State registrar on or before the 5th day of the following month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner must be called. If the coroner holds an inquest, he is directed by law to issue the death certificate; if he does not deem an inquest necessary, the physician in attendance signs the death certificate; if death occurred without medical attendance and the coroner does not hold an inquest, the local registrar is directed to sign the death certificate.

Blanks and postage.—Blanks for returns are supplied by the State registrar, and postage is paid by the physician.

Burial permits.—Burial permits are issued by the local or deputy local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners, midwives by the State department of health, and undertakers by the State board of undertakers.

BUREAU OF BACTERIOLOGY

Personnel.—The staff of the bureau of bacteriology in 1930 consisted of a director, three assistant bacteriologists, four laboratory helpers, a secretary, and a clerk.

Branch laboratories.—There were four branch laboratories in the State in 1930. Of these, the Cumberland branch was supported by the State department of health, the city of Cumberland, Allegany and Garrett Counties, and the Hagerstown, Frederick, and Hurlock branches were all supported by the State department of health.

Private laboratories.—The State department of health has no supervision over the private laboratories in the State.

Special laboratory.—See bureau of chemistry.

Activities.—During 1929, 84,682 examinations were made by the central and branch laboratories, the principal diagnostic activities being Widal reactions, milk and water analyses, and uranalyses. Serological examinations for the diagnosis and treatment of venereal infections are also an important feature of the laboratory work. A summary of diagnostic activities is given on pages 98 to 100.

Fees.—No fees are charged for laboratory services.

Biologicals.—Biological products are purchased and distributed free of charge by the division of personnel and accounts. An analysis of the amounts issued in 1929 is given on page 102.

BUREAU OF CHEMISTRY

Personnel.—The personnel of the bureau of chemistry consisted, in 1930, of a director, three assistant chemists, a laboratory helper, and a secretary.

Activities.—In addition to the bureau of bacteriology, the State department of health maintains a bureau of chemistry to determine chemically the sanitary quality of potable waters, milk, and other food substances; to determine the legality of drug products and

pharmaceutical and medicinal preparations sold to the public; to assist in testing the efficiency of operations conducted for the purification of water or for the treatment of sewage; to assist in preventing the adulteration or misbranding of food; and to conduct investigations from time to time which have for their object the improvement of analytical methods applicable to drugs, foods, water, and sewage.

BUREAU OF SANITARY ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering included in 1930 a chief engineer, nine assistant sanitary engineers, a draftsman, a secretary, and two stenographers.

Public water supplies.—The State department of health has general supervision and control over the waters of the State; it may enforce rules and regulations to correct pollution and may order changes. Plans for the installation of water systems must be submitted by local communities and institutions to the bureau of sanitary engineering for approval. Written permits for such construction must be obtained from the State department of health.

Bottled waters.—The State department of health has supervision and control over and issues permits for the collecting, bottling, and delivering of waters intended for human consumption.

Water analyzed.—Water supplies are analyzed at monthly intervals; some supplies are analyzed more often, depending upon local conditions.

Inspection.—Water-purification plants are inspected at regular intervals, usually once a month.

Ice industry.—The State department of health may order the source of any water or ice supply to be closed if the supply is found to be dangerous to health. No new source of ice supply may be used until the department has approved of it and has issued a written permit.

Sewage disposal.—The State department of health has the power to investigate all sewage disposal plants. Plans for such plants must be submitted to the State department of health in order to obtain a written permit for operation.

Tourist and summer camps.—Tourist camps are maintained by the State roads commission, but the State department of health makes regular inspections of the sanitary conditions of such camps and collects samples of their water supplies for examination.

Swimming pools.—Regulations concerning swimming pools have been passed. Regular inspections are made and advice is given regarding their operation.

Roadside water supplies.—No attempt has been made to regulate roadside water supplies other than those maintained by the tourist camps.

Shellfish.—The division of sanitary engineering supervises all the field operations in the control of oyster and shellfish sanitation.

Examination of specimens is made by the laboratory and the responsibility of the handling of shellfish is a function of the bureau of food and drugs of the State department of health.

BUREAU OF CHILD HYGIENE

Personnel.—In 1930 the personnel of this bureau consisted of a chief, a secretary, and a stenographer. Clinicians are employed by the day as needed.

Prenatal and maternal hygiene.—The policy of the bureau from the beginning has been to assist each county in the State in formulating and carrying out a maternity and child-health program according to its particular needs. A prenatal clinic was held each month in Hartford County, 72 patients attending during 1929.

Midwifery.—A course of eight lectures with demonstrations on midwifery has been given in 15 out of 23 counties in the State. The midwives who attend this course and successfully pass the examination, which is approved by two physicians, are supplied with equipped obstetrical bags. These bags are inspected regularly by a public-health nurse.

Ophthalmia neonatorum.—Ophthalmia neonatorum must be reported as an infectious disease. Midwives are required to use a 1 per cent solution of silver nitrate, which is furnished by the bureau of child hygiene, for all the new born.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are not licensed by the State board of health.

Infant and preschool hygiene.—Child health conferences are conducted once a month in nearly all the counties of the State by a pediatrician representing the bureau. Children from infancy to school age are examined. No treatments are given nor are sick children received except when referred by the family physician. The bureau assists the local physician and nurses in securing the correction of defects and in procuring the services of dentists, specialists, and hospital treatment as required. During 1929, 420 such clinics were held and 6,791 infants were examined.

School hygiene.—School hygiene is handled by the bureau of communicable diseases. (See p. 336.)

Public health nursing.—The division of public health nursing was discontinued in 1925. The work was carried on in 1930 by the director of health through the deputy State health officers.

DIVISION OF ORAL HYGIENE

Personnel.—The staff of the division of oral hygiene in 1930 included a division chief, several part-time dental clinicians, a full-time clinician and a secretary.

Activities.—The operation of several dental clinics to offer dental corrective work to indigent children and to spread information regarding the importance of mouth health is the principal activity of this division.

BUREAU OF FOOD AND DRUGS

Personnel.—The staff of the bureau of food and drugs included in 1930 a commissioner, a deputy drug commissioner, nine food and drug inspectors, two drug inspectors, and two secretaries.

Activities.—The enforcement of the food and drugs act, which is similar to that of the Federal Government, is the chief function of the bureau of food and drugs.

Food inspection.—The inspection of food is required to determine the sanitary conditions and to investigate cases of adulteration or misbranding.

Food handlers.—In 1924 the examination of employees of oyster-packing establishments was required by law. The examinations were made by physicians designated by the State department of health. Otherwise the medical examination of food handlers is not required.

Inspections.—Bakeries are inspected by the health department; hotels and restaurants are not inspected.

Cold storage.—The enforcement of cold-storage laws is under the control of the health department.

Slaughterhouses.—The inspection of slaughterhouses is a function of the health department.

Milk laws.—The State board of agriculture works in conjunction with the State department of health in enforcing the milk laws of the State. Tuberculin testing of cattle is required by a few cities and towns. This work is carried on by the State board of agriculture and the Federal Government.

Analyses.—Samples of milk are examined by the bureau of bacteriology for adulterations, bacteria, etc.

Pasteurization.—There are no compulsory laws relating to the pasteurization of milk, but heating of milk to 145° Fahrenheit for 30 minutes is urged.

Licensing of dairies.—The licensing of dairies is not required by the department of health but most local authorities exact it. Dairies are inspected by the department of health.

STATE BOARD OF MENTAL HYGIENE

The State board of mental hygiene is not a part of the State department of health, though the director works in close cooperation with it. Clinics are held in the State department of health offices where patients referred by members of the State department of health are examined.

TABLE 146.—*Total budget, State legislative budget for health work, and budgets by bureaus and divisions, by years*

MARYLAND

Bureau and division	1915	¹ 1916	1917	1918	1919	1920
Total budget.....	\$142,500	² \$124,500	³ \$124,500	⁴ \$124,500	⁵ \$193,604	⁶ \$189,392
State legislative budget.....	142,500	124,500	124,500	124,500	179,520	179,520
Executive office.....	21,737	21,685	23,975	26,115	33,559	32,573
District and county health work.....	37,592	28,545	31,856	28,827	38,883	43,085
Bureau of communicable diseases.....	12,377	10,191	14,854	14,315	19,921	26,441
Bureau of vital statistics.....	7,500	6,250	8,049	8,743	11,261	11,379
Bacteriological laboratory.....	9,425	6,541	7,769	8,247	12,925	18,301
Chemical laboratory.....	11,404	7,590	7,275	7,808	10,478	10,299
Bureau of sanitary engineering.....	23,068	⁷ 15,907	⁸ 26,158	⁹ 29,470	¹⁰ 31,115	¹¹ 33,133
Bureau of food and drugs.....	17,085	10,752	12,533	13,511	17,668	18,590
Division of venereal disease.....					¹² 20,001	¹³ 25,575

Bureau and division	1921	1922	1923	1924	1925
Total budget.....	¹⁴ \$253,070	¹⁵ \$257,901	¹⁶ \$311,480	¹⁷ \$301,145	¹⁸ \$342,428
State legislative budget.....	240,000	240,000	280,497	280,497	322,808
Executive office.....	49,268	57,801	25,470	23,903	12,205
District and county health work.....	¹⁹ 49,503	²⁰ 51,681	²¹ 58,823	48,941	54,073
Bureau of communicable diseases.....	21,119	21,704	24,598	29,105	34,568
Bureau of vital statistics.....	13,180	13,584	15,223	15,549	15,877
Bacteriological laboratory.....	13,929	15,385	21,281	20,090	24,857
Chemical laboratory.....	10,176	10,483	11,663	11,715	11,538
Bureau of sanitary engineering.....	32,972	30,525	²² 32,776	²³ 37,617	38,483
Bureau of food and drugs.....	21,550	20,550	29,171	30,018	32,316
Division of venereal disease.....	²⁴ 25,108	²⁵ 20,208	²⁶ 24,841	²⁷ 24,944	²⁸ 25,175
Division of public-health nursing.....	2,500	17,675	26,000	20,000	12,000
Division of public-health education.....	704	981	987	2,000	697
Bureau of child hygiene.....		²⁹ 5,995	³⁰ 24,030	³¹ 38,819	³² 33,185
Division of personnel and accounts.....			43,164	47,427	

Bureau and division	1926	1927	1928	1929	1930
Total budget.....	³³ \$400,615	³⁴ \$401,747	³⁵ \$463,233	³⁶ \$490,933	³⁷ \$523,172
State legislative budget.....	325,215	325,215	380,676	380,676	429,692
Executive office.....	16,433	20,338	24,003	28,275	31,155
District and county health work.....	³⁸ 51,214	³⁹ 58,255	⁴⁰ 69,050	⁴¹ 82,596	⁴² 115,393
Bureau of communicable diseases.....	64,524	67,322	70,508	66,887	60,711
Bureau of vital statistics.....	15,917	16,403	18,272	18,813	22,436
Bacteriological laboratory.....	30,704	34,273	35,936	38,322	39,792
Chemical laboratory.....	12,321	12,918	13,307	13,182	15,078
Bureau of sanitary engineering.....	39,213	40,949	45,749	49,813	51,859
Bureau of food and drugs.....	34,630	34,716	42,175	36,804	39,683
Division of venereal disease.....	(9)	(9)	(9)	(9)	(9)
Division of public-health nursing.....	(9)	(9)	(9)	(9)	(9)
Division of public-health education.....	(9)	(9)	(9)	(9)	(9)
Bureau of child hygiene.....	⁴³ 37,966	⁴⁴ 38,871	⁴⁵ 37,530	⁴⁶ 40,309	14,586
Division of personnel and accounts.....	50,262	50,410	55,594	60,033	56,049
Division of oral hygiene.....					10,000

¹ All expenditures for 1916 are for the period Jan. 1 to Oct. 30.² State institutions' funds included.³ U. S. Public Health Service funds included. (See Table 147.)⁴ School of hygiene funds included. (See Table 147.)⁵ Sheppard-Towner funds included. (See Table 147.)⁶ Rockefeller Foundation funds included. (See Table 147.)⁷ Local funds included. (See Table 147.)⁸ Included under bureau of communicable diseases.⁹ Included under executive office.

TABLE 147.—Total appropriations for State department of health, by years

MARYLAND

Year	Total appropriation	Source of funds and amounts						
		State legislature	U. S. Public Health Service, venereal diseases	U. S. Children's Bureau	County	County towns	School of hygiene	Rockefeller Foundation
1915	\$142,500	\$142,500						
1916	124,500	124,500						
1917	124,500	124,500						
1918	124,500	124,500						
1919	193,604	179,520	\$14,084					
1920	189,392	179,520	9,872					
1921	253,070	240,000	7,695				\$5,375	
1922	257,901	240,000	3,086	\$8,270			1,000	\$5,545
1923	311,480	280,497	3,086	19,277			1,000	7,620
1924	301,145	280,497	1,371	19,277				
1925	342,428	322,808	343	19,277				
1926	400,615	325,215		19,277	\$29,060	\$9,745		\$17,818
1927	401,747	325,215		19,277	34,060	9,745		13,450
1928	463,233	380,676		19,277	38,270	6,400		18,610
1929	490,933	380,676		19,277	67,470	6,400		17,110
1930	523,173	429,692			69,970	6,400		17,110

MASSACHUSETTS

DEPARTMENT OF PUBLIC HEALTH

History.—The first State board of health in Massachusetts was established in 1869. In 1879 its powers were transferred to the newly established board of health, lunacy, and charity, but in 1886 the State board of health was reestablished. The board has since been replaced by the department of public health, created in 1914.

Organization.—The public-health council is composed of six members and the commissioner of public health. These members are appointed by the governor with the approval of his council. Three of the members of the public-health council must be physicians and three must be citizens of Massachusetts.

Term of office and compensation.—The members serve for a period of three years, the terms of two members expire each year. They receive \$10 a day and traveling expenses while in performance of their duties.

Meetings.—Regular monthly meetings are held and special meetings may be called by the commissioner.

EXECUTIVE OFFICER

Legal qualifications.—The commissioner of public health must be a citizen of the State and a physician trained in preventive medicine. He is appointed by the governor with the approval of his council as the executive and administrative head of the department of health. He is chosen from outside the public-health council and becomes the seventh member of the council.

Massachusetts - Organization of the State Department of Health in 1930

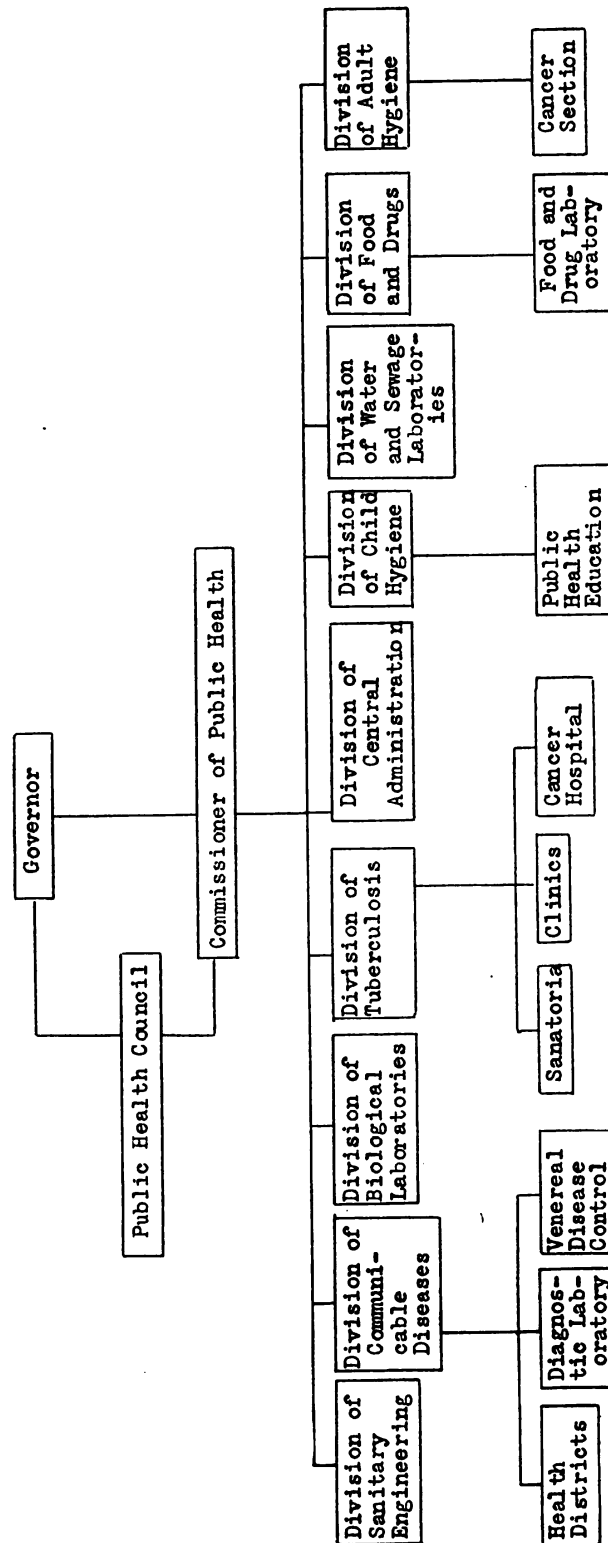


FIGURE 38

Term of office and compensation.—The executive officer serves for a term of five years. He receives a yearly salary of \$7,500, and an allowance for traveling expenses.

POWERS OF THE STATE DEPARTMENT OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—The State department of public health has quasi-judicial powers concerning nuisances under offensive trades. It has legislative and executive power in regard to sanitation, water pollution, sewage disposal, milk supplies, food adulteration, and communicable diseases. Quarantine and nuisance measures are under the control of the local boards of health. Midwives are not recognized. The enforcement of the medical practice law is a function of the board of registration of medicine. The public-health council acts in an advisory capacity to the commissioner of health.

APPROPRIATIONS

The State legislature makes an annual appropriation allotted by budget to the various divisions of the State department of public health. The legislature meets in January of each year. The fiscal year of the health department ends November 30.

TABLE 148.—Divisions of the State department of public health in 1930¹

MASSACHUSETTS

Divisions ²	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of central administration.....	\$43,650	14	\$7,500	\$20,650	\$28,150
Division of communicable diseases.....	92,500	28	6,000	65,000	71,000
Venereal diseases.....	44,700	5	3,780	8,420	12,200
Division of tuberculosis.....	³ 129,360	35	4,200	84,900	89,100
Division of biological laboratories.....	132,275	53	6,000	78,200	84,200
Division of water and sewage laboratories.....	50,000	17	4,800	37,200	42,000
Division of sanitary engineering.....	93,000	24	6,500	65,500	72,000
Division of child hygiene.....	94,700	31	4,800	56,400	61,200
Division of food and drugs.....	69,110	28	4,800	47,860	52,660
Division of adult hygiene.....	76,700	20	4,600	35,100	39,700

¹ Total appropriation, \$2,797,485; total appropriation exclusive of tuberculosis subsidies, sanatoria and cancer hospital funds \$829,995; total appropriation from State legislature, \$2,797,485; total appropriation from State legislature exclusive of tuberculosis subsidies, sanatoria, and cancer hospital funds, \$829,995. Tuberculosis subsidies, \$263,000; tuberculosis sanatoria funds, \$1,428,290; Pondville hospital (for cancer cases), \$266,200; care of radium, \$10,000.

² The registration of vital statistics is under the secretary of state.

³ Appropriation for sanatoria and subsidies not included.

DIVISION OF CENTRAL ADMINISTRATION

Personnel.—The personnel of the administrative office in 1930 consisted of the commissioner of health, an accountant, a secretary, and seven clerks.

Civil service.—All employees of the State department of health except physicians, division directors, and certain of the institutional staff are civil service appointees.

Disbursement of funds.—Bills are rendered to the department of public health, where they are approved and recorded and then sent to the comptroller of the Commonwealth to be audited. Checks are then issued by the State treasurer, who is the disbursing agent.

Purchases.—The Commonwealth has a purchasing bureau through which most of the buying is done. Requisitions are made out by the division directors, and sent to the central administrative office of the department of public health. Requisitions for the materials which are bought through the State purchasing bureau are forwarded to that bureau; orders for materials which the department may buy directly are sent to business firms. Bills for everything, whether purchased through the purchasing bureau or by the department directly, are sent to the department of public health.

DIVISION OF COMMUNICABLE DISEASES

Organization.—The division of communicable diseases is composed of the three departments: District health officer supervision, diagnostic laboratory, and venereal disease control.

Personnel.—In 1930 the chief of the division of communicable diseases was the deputy State health officer. His staff consisted of an assistant director and an epidemiologist.

Reporting of diseases.—Cases of communicable diseases are reported daily to the State department of public health by local boards of health.

Quarantine.—Quarantine measures are under the control of the local boards of health.

Smallpox vaccination.—Smallpox vaccination is compulsory for public-school children. The law is enforced by the school committees.

Emergency fund.—An emergency fund to be used at the discretion of the governor is provided in case of an epidemic.

District health officer supervision.—The commissioner, with the approval of the council of public health, may divide the State into not more than eight health districts and may appoint and remove health officers for such districts. Each district health officer acts as the representative of the commissioner. At the close of 1930 Cape Cod County had the only full-time county health unit under local jurisdiction.

Diagnostic laboratory.—The personnel of the diagnostic laboratory in 1930 consisted of a chief, 2 clerks, 3 bacteriologists, 2 laboratory helpers, and 4 laborers.

Activities of the diagnostic laboratory.—Routine diagnostic examinations are made in this laboratory, which is located at the statehouse. During 1929 a total of 34,015 examinations was made. The most important of these were examinations of diphtheria and typhoid cultures and tuberculosis sputa. A summary of diagnostic activities is given on pages 98–100.

Venereal-disease control.—In 1930 venereal-disease control work was under the direction of an epidemiologist, an assistant epidemiologist, a social worker, two stenographers, and a part-time lecturer.

Activities.—The creation of the Wassermann laboratory in 1915, making the facilities available to all free of charge, was the first step taken in the control of venereal diseases. The next step was the authorization and appropriation by the legislature in 1916 of funds for carrying out chemical research. The large-scale manufacture and free distribution of arsphenamine on a routine basis to qualified dispensaries and physicians was the result. The third step in the development of venereal-disease control was the establishment of a definite system of reporting and of State-approved treatment centers or clinics, and the inauguration of a general educational campaign. This program for venereal-disease control became effective early in 1918, antedating Federal action along similar lines. Since 1927 arsenicals have been purchased, and arsphenamine, sulpharsphenamine, and neoarsphenamine are now distributed. Emphasis on the work of the department of public health has been laid consistently on the communicable disease aspects of the problem, and the important field of sex education in general has been left to those other governmental and social agencies better equipped by function and authority to handle them. The reporting of communicable cases of venereal disease by number is mandatory. If cases lapse treatment, reports by name and address are made. No one is required to take treatment and no control over prostitution is assumed by the State department of public health.

Clinics.—In 1930, 14 venereal-disease clinics were maintained under the supervision of the State department of public health and subsidized by the State. Thirteen nonsubsidized clinics were conducted and 26 clinics were conducted by State hospitals and institutions.

Treatments.—During 1929, 213,654 venereal-disease treatments were given, of which 54,961 were salvarsan. Arsenicals are prepared by the State and distributed free. Mercurials are purchased and distributed. A small fee is usually charged when the patient is able to pay.

DIVISION OF TUBERCULOSIS

History.—In 1915 the department of health set standards for the maintenance of municipal tuberculosis dispensaries. The same year saw the inauguration of a system of follow-up work designed for and carried out by the tuberculosis nurse of the local boards of health and, to a certain extent, by the district health officers in the smaller communities where no facilities for tuberculosis control existed. Legislation passed the next year established a group of county tuberculosis hospitals to supplement facilities already provided by the larger

municipalities and by the four State sanatoria, and authorized the employment of a corps of field nurses to provide more effective follow-up work. Experience had shown that the district health officers alone could not carry this work in addition to their other numerous duties.

Organization.—Prior to 1920 tuberculosis control work was included among the activities of the division of communicable diseases. Following the transfer of the administrative control of the four State sanatoria to the department of public health in 1920, a division of tuberculosis was created. The division was charged not only with the responsibility of the management of the tuberculosis sanatoria but also with the maintenance of the tuberculosis clinics and all phases of the tuberculosis control work of the department of public health. The division has two budgets, one for the tuberculosis clinics which were established in 1924 and one for the tuberculosis sanatoria. For administrative purposes the Pondville Hospital for the care of cancer patients is included among the activities of this division.

Tuberculosis sanatoria.—Prior to 1920 the four State sanatoria were governed by trustees. In 1920 they were transferred to the administrative control of the State department of public health. They are maintained through a separate budget included in the budget of the State department of public health. The budget amounted to \$1,428,290 in 1930. The four sanatoria have a total capacity of 1,050 beds.

Throughout the State approximately 3,500 beds are maintained for tuberculous patients. In addition 250 beds are available in the State infirmary at Tewksbury, maintained under the department of public welfare, where patients without legal settlement are cared for.

Tuberculosis clinics.—The personnel of the tuberculosis clinics in 1930 consisted of a director, 7 clinic physicians, 11 nurses, 10 stenographers, and 3 clerks. Clinics are mandatory in cities of 10,000 population; hospitals must be maintained in counties. Eight consultation and four out-patient clinics were conducted under the supervision of the State department of public health in 1929 and 3,368 patients received treatment. Fifty-four clinics with approximately 22,000 patients were conducted by local organizations. Seven field nurses in contact with the local organizations stimulate the reporting and the follow-up work of the cases. During 1929, 53,260 examinations were made of school children in 33 cities and towns.

Subsidies.—A subsidy of \$5 per week is made by the State to cities and towns to encourage the hospitalization of patients. In 1930, \$263,000 was appropriated to the State department of public health to subsidize the establishment of tuberculosis clinics in towns.

Juvenile tuberculosis.—In 1920 one of the sanatoria already partly so utilized was transformed into an institution for children and adolescents exclusively. At the same time surveys of school children in various parts of the State were begun, which culminated in the present state-wide program, put in operation in 1924, for the detection and cure of juvenile tuberculosis of the bronchial glandular type and for the correction of faulty hygiene and nutritional conditions among school children. In 1922 the division of tuberculosis control called attention to the need of an institution for the treatment of forms of tuberculosis other than pulmonary occurring in both adults and children. In 1923 the legislature took the initial steps to establish this and enacted into legislation certain other important recommendations of the division relative to tuberculosis institutions. The general effect of this legislation will be the hospitalization of adult patients principally in county and municipal institutions and the use of the State sanatoria for children and the nonpulmonary cases, with the eventual restriction of treatment of adult patients to but one State sanatorium.

Bovine tuberculosis.—The program for bovine tuberculosis control and for the prevention of the transmission of bovine tuberculosis to man through the milk supply is carried on under the direct supervision of the division of animal industry of the department of conservation.

DIVISION OF VITAL STATISTICS

Secretary of State.—The organization of the division of vital statistics under the secretary of State and quite separate from the department of public health is unique in Massachusetts. A registration law has existed since 1639 in Massachusetts, and since 1841 registration duties have been required of the secretary of State.

Personnel.—The personnel of the State department of vital statistics in 1930 consisted of the State registrar, a secretary, and 15 clerks.

Registration district.—The cities, towns, and the Tewksbury State infirmary form the 356 primary registration districts of Massachusetts.

Local registrars.—The town clerk, who is elected by the people, is the local registrar in towns. In Boston a city registrar is appointed by the mayor. The towns pay the local registrars' salaries and also unless otherwise provided, fees of \$1 for copies of each birth and 50 cents for copies of each death and marriage certificate transmitted to the secretary of State. In the cities the local registrars receive a salary without fees.

Registration area.—In 1880 the registration area for births recognized by the United States Bureau of the Census included but two States, New Jersey and Massachusetts, the District of Columbia, and

a number of cities in nonregistration States. Massachusetts was also one of the original States admitted to the registration area for births in 1915. The office of the State registrar of vital statistics was established in 1918.

Reporting of deaths.—In 1929 all the deaths occurring in the State were reported; all were reported by physicians. Deaths must be reported at once to the local board of health, which transmits the death certificate to the local registrar. By the 10th of the month a certified copy of the certificate must be transmitted to the State registrar by the local registrar.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in this State.

Reporting of births.—In 1929 all the births occurring in the State were reported; all were reported by physicians as far as is known. Births must be reported to the local registrar within 48 hours and a complete return of the required facts must be made within 15 days. Certified copies of birth certificates are transmitted to the State registrar once a year.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The office of the secretary of State supplies the blanks, record books, and indexes for recording the returns and the local registrars pay the postage.

Unlawful death.—In case death is thought to be caused by unlawful means or in case of accidental or violent death, the medical examiner, who is appointed by the governor, takes charge.

Burial permits.—Burial permits are necessary and are issued by the local boards of health upon receipt of a satisfactory certificate of death.

Licensing.—Physicians are licensed by the State board of registration; undertakers are licensed by the local boards of health; and embalmers are licensed by the State board of registration in embalming. Midwives are not recognized in Massachusetts.

STATE PUBLIC-HEALTH LABORATORIES

Organization.—Seven laboratories in the State maintained by the different divisions of the department of public health carry on the various types of laboratory work. (See fig. 39.)

Division of water and sewage laboratories.—The main laboratory of the division of water and sewage is located at the statehouse and a branch laboratory is located at Lawrence. During 1930 the personnel of these laboratories consisted of a director, 9 chemists, 3 laboratory assistants, 2 stenographers, and 2 laborers.

Division of biological laboratories.—Two separate laboratories are maintained by the division of biological laboratories: The Wassermann laboratory located at the Harvard Medical School, and the laboratory

Massachusetts - Organization of Laboratory Service

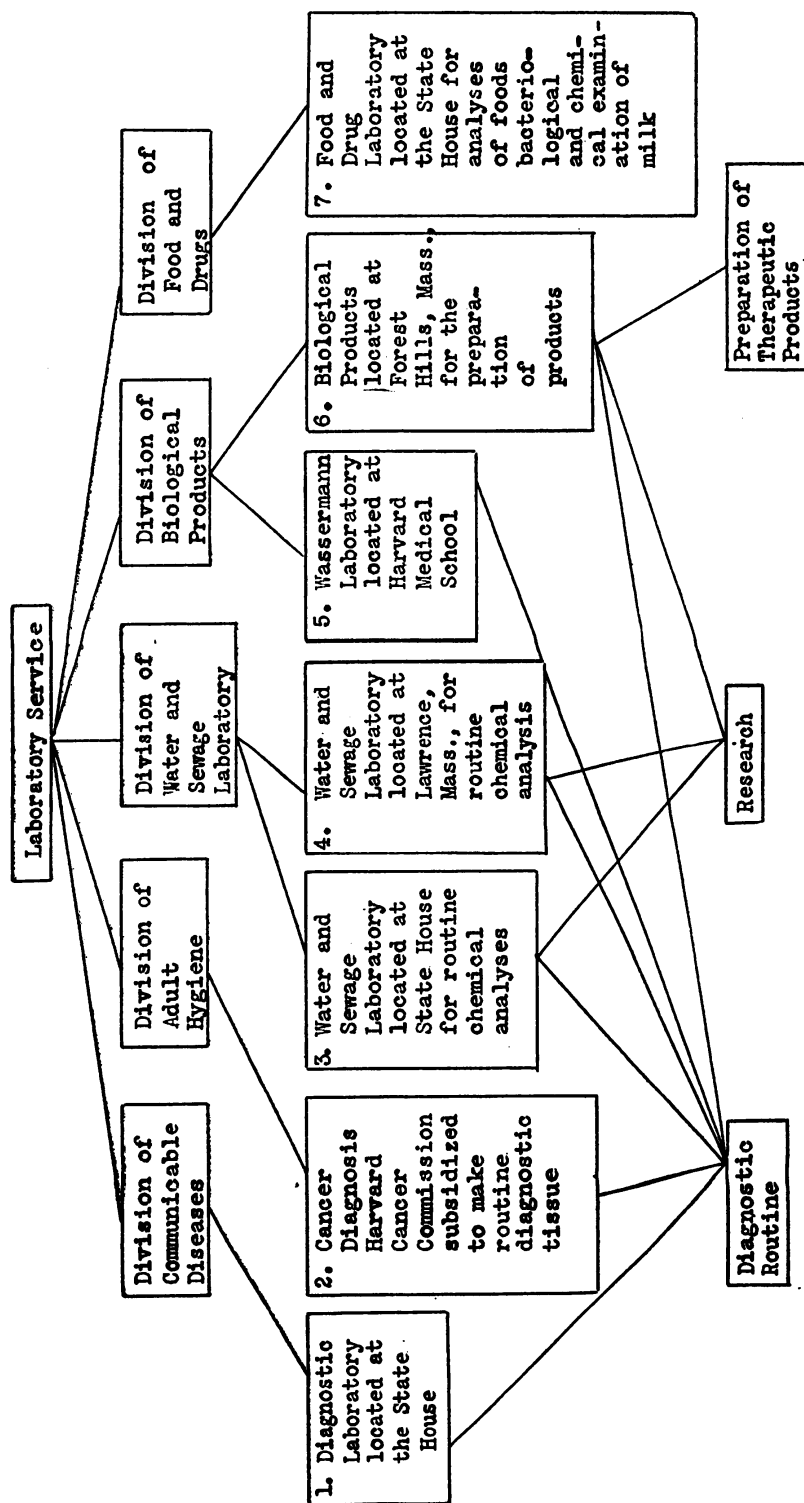


FIGURE 39

for the preparation of biological products located at Forest Hills. The personnel of the division consisted in 1930 of a director, 2 assistant directors, 7 bacteriologists, 9 laboratory assistants, 5 stenographers and 22 other employees. All biologicals are manufactured by this laboratory and are distributed free by the State department of public health with the exception of rabies treatments. A detailed summary of the biological products issued during 1929 is given on pages 98-100.

Diagnostic laboratory.—The diagnostic laboratory is part of the division of communicable diseases. (See p. 345.)

Cancer laboratory.—Diagnostic tissue examinations are furnished by the Harvard Cancer Commission.

Food and drugs laboratory.—The food and drugs laboratory functions under the division of food and drugs. (See p. 355.)

Fees.—No charge is made for any service performed by any of the laboratories.

Research.—Research work is carried on by the water and sewage laboratories, the biological laboratory at Forest Hills and the food and drugs laboratory.

DIVISION OF SANITARY ENGINEERING

Since 1886 State supervision has been maintained over the sources of water supply and the methods of sewage and industrial waste disposal.

Personnel.—The staff of the division of sanitary engineering in 1930 consisted of the chief engineer, 11 sanitary engineers, and 8 stenographers.

Powers of the department.—The State department of public health exercises advisory powers with regard to engineering matters in general and certain mandatory powers with regard to the pollution of streams.

Public water supplies and sewage-disposal systems.—Massachusetts laws provide that plans for all systems of public water supplies, sewerage, or drainage shall be submitted to the State department of public health for advice, and that all acts establishing such systems must be accompanied by the advice of the department relative thereto. In recent years all enabling acts relative to water supply and sewerage systems have required that plans be approved by the department of public health.

Analysis.—All public-water supplies are examined at regular intervals by the department. Examinations are made usually once a month and in some cases as often as twice a week. A large number of examinations are made by the engineering division of sewerage systems and sewage-disposal works.

Inspection.—Water-purification plants are inspected every two months.

Bottled water.—The supervision of bottled waters is a function of this division.

Shellfish.—The engineering division examines shellfish areas to determine the extent of contamination.

Ice industry.—The general law which covers water supplies covers the ice industry also. The division engineer investigates and advises local authorities concerning ice industries.

Camps.—The engineering division examines summer camps. There are no regulations concerning tourist camps.

Swimming pools.—No rules or regulations have been passed concerning swimming pools.

Roadside water supplies.—No legislation has been passed relating to roadside water supplies.

DIVISION OF CHILD HYGIENE

Personnel.—The division of child hygiene is divided into six sections. A director at the head of the division supervises and correlates the work. In addition to the director the personnel of the division consisted in 1930 of 3 physicians, 6 nurses, 7 health instructors, 15 stenographers, and 1 other employee.

Prenatal clinics.—No prenatal clinics were conducted by the State department of public health during 1929.

Ophthalmia neonatorum.—Ophthalmia neonatorum is a reportable disease. Prophylactic treatment is not required by law, but silver nitrate is furnished free to physicians.

Midwifery.—Midwifery is not recognized in Massachusetts.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed by the State department of public welfare.

Well-child conferences.—Maternal and infant hygiene demonstrations and well-child conferences are held upon request with the object of establishing permanent local clinics. During 1929 well-child conferences were held in 47 towns and 2,205 children were examined.

School hygiene.—The medical examination of school children is required by law. Examinations are conducted by the local department of education or by the local board of health. Specialists act in an advisory capacity usually in the smaller cities and towns.

Schools nurses.—The law also requires that school nursing service be provided in every town. These nurses are supported by the local boards of health. In 1914 no reliable census was taken of nurses employed on a full or part time basis in school-health work, but the most liberal estimate would not exceed 50 in number, and these were centered in a half dozen of the largest cities. In 1929 there were 475 such nurses employed on a full-time or part-time basis. Including

these, approximately 1,200 public-health nurses are employed throughout the State.

Eligibility requirements.—No statutory requirements are made for State or local public health nurses with the exception of passing a civil service examination.

Public health education.—The divisions of child hygiene, adult hygiene, and communicable diseases direct the educational activities of the State department of public health.

Press service.—News items are given out to about 150 papers.

Bulletins.—Every three months a bulletin with a circulation of about 5,000 copies is issued. During 1929 several special pamphlets, chiefly on school hygiene, and many leaflets on nutrition, dental hygiene, and other phases of child health work were published.

Equipment.—The State department of public health owns 8 delineascopes, 121 delineascope films, 2,500 slides, 2 motion-picture machines, 25 motion-picture films, and several portable exhibits.

Cooperation.—There is close cooperation between the State departments of education and of public health in the conduct of school hygiene work. Summer courses and regional conferences also are conducted jointly by these departments.

DIVISION OF ADULT HYGIENE

History.—The general court of 1926 directed the department of health to formulate a plan for the care and treatment of persons suffering with cancer. Under this authority a fourfold program was inaugurated consisting of hospitalization, clinic administration, education, and investigation. A 90-bed hospital was opened and made available to any residents of the State afflicted with cancer. The administration of the hospital was placed under the division of tuberculosis. Twelve cancer clinics were established in 17 cities and towns. Education for both physicians and the public was carried on. Statistical investigations of the epidemiology of cancer and the care and treatment of patients were conducted. Clinical, educational, and investigative activities were under the administration of the cancer section, a subdivision of the division of administration. In June, 1929, the division of adult hygiene was created. This division assumed all the duties of the cancer section and part of those of the division of child hygiene.

Personnel.—The division of adult hygiene consisted in 1930 of a director, 2 physicians, 2 social workers, and a force of 14 stenographers, clerks, and statisticians.

Cancer clinics.—Cancer clinics aided by the State are administered by committees appointed by local medical societies. In order to receive State aid, the clinics must meet certain minimum requirements adopted by the division. These include an adequate staff, social

follow-up work, and an educational committee in each clinic. The social workers of the division keep in close touch with the various clinics and correlate the activities of their social workers.

Education.—Three members of the division staff devote their time to educational activities. They meet with the educational committees in the cities which maintain clinics, furnish newspaper publicity, and conduct a speakers' bureau composed of doctors eminent in the field of cancer. Literature is prepared and distributed and radio broadcasting is used frequently. At intervals, educational campaigns are conducted for physicians or the public.

Investigations.—Statistical investigations in cancer are carried on. The epidemiology of all chronic diseases and the care and treatment of patients afflicted with them are investigated. House-to-house canvasses to determine morbidity have been completed in eight communities. Questionnaires have been sent to physicians, nursing homes, and hospitals. The Massachusetts death records since 1848 have been studied; records from selected hospitals have been tabulated; and the records of the State cancer hospital and the State-aided cancer clinics have been studied. The visiting nurses' organizations have collected data on the personal habits of individuals with and without cancer. Special studies have been made by social workers and hospitals.

Diagnostic laboratory.—Free diagnosis of pathological material is furnished by the joint efforts of the Harvard Cancer Commission and this division.

DIVISION OF FOOD AND DRUGS

The work of the division of food and drugs has been carried on continuously and with increasing volume since 1883.

Personnel.—The personnel of the division of food and drugs consisted, in 1930, of a chief, 6 chemists, 6 laboratory assistants, 4 laboratory workers, 7 inspectors, and 6 clerks.

Activities.—The division of food and drugs is intrusted with the enforcement of the laws relative to the adulteration of milk, food, and drugs; the cold storage law; the law governing slaughtering inspection; the law governing bakeries; certain portion of the grade A milk law; the certified milk law; the pasteurization law; the law governing the bottling of soft drinks; the coal law; and the laws with regard to shellfish sanitation.

Food handlers.—The medical examination of food handlers is not required by law.

Food inspection.—All persons selling food are required to comply with the food laws. Inspection of food is required prior to sale.

Hotels, etc.—The inspection of places where food is sold is not required. A permit from the local board of health is necessary to operate soft-drink factories.

Abattoirs and cold storage.—Licenses from the State department of public health are necessary to operate cold-storage warehouses and slaughter houses.

Shellfish.—The law governing shellfish sanitation gives the department of public health the power to prohibit the taking of shellfish in areas found to be polluted. The food and drugs division carries on the work of inspection in connection with the sanitation of shellfish. The sale of polluted shellfish is a violation of the food and drugs law.

Milk laws.—The enforcement of the law relative to the adulteration of milk is intrusted to the State department of public health, the department of agriculture, and the local boards of health jointly. A milk inspector in each city is required to enforce the milk laws. The larger part of the milk inspection, however, devolve upon the personnel of the division of food and drugs. Milk dealers and producers are licensed by the local boards of health.

Pasteurization.—The pasteurization of milk is defined by statute. The health department has authority to set up standards for pasteurizing plants and to revoke licenses for noncompliance.

Tuberculin testing.—The tuberculin testing of cattle is required by certain localities.

Analyses.—Chemical and bacteriological examinations of about 8,000 samples of milk per year are made by the division of food and drugs. The total solids and fats of all samples are determined, and additional analyses are made of those which are suspected of adulteration.

Dairies.—The inspection of dairies is not carried on by the State department of public health.

Laboratory.—The division of food and drugs maintains a laboratory, located at the statehouse, for the analysis of foods and milk.

TABLE 149.—Total budget, State legislative budget for health work, and budgets by divisions, by years

MASSACHUSETTS

Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$892,996	\$1,079,121	\$1,079,461	\$1,382,381	\$1,381,356	\$1,556,314
Total budget exclusive of tuberculosis sanatoria funds ¹	211,700	232,670	262,050	322,352	376,302	499,582
State legislative budget ²	211,700	232,670	262,050	285,749	339,699	514,452
Division of central administration.....	36,400	25,740	24,500	28,000	28,700	32,600
Division of communicable diseases ³	50,300	62,800	62,653	66,850	106,350	78,000
Division of biological laboratories ⁴	25,640	29,000	33,700	40,000	50,300	56,240
Division of sanitary engineering.....	28,700	31,400	29,850	30,000	37,300	44,700
Division of food and drugs ⁵	32,500	42,500	33,000	33,000	53,200	48,775
Division of plumbing inspection.....	5,200	5,200	5,200	4,800	4,800	4,800
Division of water and sewage laboratories.....	28,100	25,400	26,950	26,800	29,200	33,648
Division of child hygiene.....	—	14,300	20,000	24,500	27,850	39,145
Venereal diseases.....	—	—	—	66,603	48,154	36,541
Tuberculosis clinics.....	—	—	—	—	—	14,870
Vital statistics under secretary of state.....	18,760	18,760	23,760	23,760	23,760	23,760

¹ U. S. Public Health Service funds included. (See Table 150.)

² Exclusive of cancer hospital funds, tuberculosis subsidies to towns, and tuberculosis sanatoria funds, but includes appropriation for tuberculosis clinics.

³ Including diagnostic laboratory.

⁴ Including biological and Wassermann laboratories.

⁵ Including food and drugs laboratory, and arsenical laboratory through 1927.

TABLE 149.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

MASSACHUSETTS—Continued

Division	1921	1922	1923	1924	1925
Total budget	\$1,525,478 ¹	\$1,561,651 ¹	\$1,607,642 ¹	\$1,614,049 ¹	\$1,847,690
Total budget exclusive of tuberculosis sanatoria funds ²	387,591	481,621	504,504	516,314	520,017
State legislative budget ²	386,453	494,421	520,260	562,003	635,467
Division of central administration	31,200	28,600	28,986	32,624	29,000
Division of communicable disease ³	79,090	82,370	78,700	71,119	68,740
Division of biological laboratories ⁴	70,701	75,309	82,255	92,900	96,200
Division of sanitary engineering	39,850	81,600	81,606	72,876	84,350
Division of food and drugs ⁵	152,096	164,420	166,636	80,043	73,786
Division of plumbing inspection	4,816	5,000	5,017	5,609	5,450
Division of water and sewage laboratories	34,825	36,625	37,200	39,700	40,700
Division of child hygiene	44,000	58,700	84,351	85,327	83,891
Venereal diseases	21,670	140,500	141,319	139,308	31,900
Tuberculosis clinics	18,860	21,000	19,400	46,600	115,450
Vital statistics under secretary of state	28,760	28,760	28,760	28,760	28,760

Division	1926	1927	1928	1929	1930
Total budget	\$2,091,450	\$2,110,295	\$2,410,775	\$2,736,495	\$2,797,485
Total budget exclusive of tuberculosis sanatoria funds ²	635,245	688,565	703,255	770,095	829,995
State legislative budget ²	635,245	688,565	703,255	770,095	829,995
Division of central administration	31,545	37,400	37,740	41,000	43,650
Division of communicable disease ³	68,250	71,250	77,050	87,200	92,500
Division of biological laboratories ⁴	94,600	132,255	116,000	124,000	132,275
Division of sanitary engineering	84,000	91,700	86,600	87,800	93,000
Division of food and drugs ⁵	65,350	69,860	66,100	76,300	69,110
Division of plumbing inspection	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)
Division of water and sewage laboratories	41,100	43,700	46,100	49,395	50,000
Division of child hygiene	83,150	72,960	78,275	81,500	94,700
Venereal diseases	30,370	28,820	43,450	46,300	44,700
Tuberculosis clinics	14,800	53,200	58,540	67,000	78,000
Division of tuberculosis	47,080	42,420	43,400	45,700	51,360
Division of adult hygiene	15,000	45,000	50,000	63,900	76,700
Vital statistics under secretary of state	(⁷)	(⁷)	(⁷)	(⁷)	(⁷)

¹ U. S. Public Health Service funds included. (See Table 150.)² Exclusive of cancer hospital funds, tuberculosis subsidies to towns, and tuberculosis sanatoria funds, but includes appropriation for tuberculosis clinics.³ Including diagnostic laboratory.⁴ Including biological and Wassermann laboratories.⁵ Including food and drugs laboratory, and arsenical laboratory through 1927.⁶ Discontinued.⁷ Not given.TABLE 150.—*Total appropriations for State department of public health, by years*

MASSACHUSETTS

Year	Total appropriation	Appropriation exclusive of tuberculosis sanatoria funds ¹	Source of funds and amounts		Year	Total appropriation	Appropriation exclusive of tuberculosis sanatoria funds ¹	Source of funds and amounts	
			State legislature ¹	U. S. Public Health Service				State legislature ¹	U. S. Public Health Service
1915	\$892,996	\$211,700	\$211,700	-----	1923	\$1,607,642	\$504,504	\$520,260	\$3,644
1916	1,079,121	232,670	232,670	-----	1924	1,614,049	516,314	562,003	911
1917	1,079,461	262,050	262,050	-----	1925	1,847,690	520,017	635,467	-----
1918	1,382,381	322,352	285,749	\$36,603	1926	2,091,450	635,245	635,245	-----
1919	1,381,356	376,302	339,699	36,603	1927	2,110,295	688,565	688,565	-----
1920	1,556,314	499,582	514,452	-----	1928	2,410,775	703,255	703,255	-----
1921	1,525,478	387,591	386,453	19,998	1929	2,736,495	770,095	770,095	-----
1922	1,561,651	481,621	494,421	8,200	1930	2,797,485	829,995	829,995	-----

¹ Exclusive of cancer hospital funds, tuberculosis subsidies to towns and tuberculosis sanatoria appropriation, but includes appropriation for tuberculosis clinics.

MICHIGAN

ADVISORY COUNCIL OF HEALTH

Organization.—In 1919 the State board of health, which had been established in 1873, was abolished. Under the new organization established in 1919, the governor, with the advice and consent of the senate, appoints five persons to constitute the advisory council of health. There are no legal qualifications for the members of this council.

Term of office and compensation.—The term of office is six years, the terms of two members expiring every two years. The members are paid \$10 per diem and their necessary traveling expenses while attending meetings.

Meetings.—Meetings are held quarterly, and special meetings may be called by the commissioner.

EXECUTIVE OFFICER

Legal qualifications.—The State commissioner of health must be a registered physician with at least five years' experience as a practicing physician or, in lieu of such experience, with the degree of doctor of public health or its equivalent. He is appointed by the governor and is not a member of the advisory council of health.

Term of office and compensation.—The State health commissioner serves for four years and receives a yearly salary of \$10,000 or such amount as is allowed by the administration board and unlimited traveling expenses.

Powers and duties.—With the concurrence of the advisory council of health, the State health commissioner makes and declares rules and regulations for the proper safeguarding of the public health. He is vested with the authority to enforce the health laws of the State.

STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial powers. It makes rules and regulations concerning sanitation, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, and midwifery. The adulteration of food and the control of milk supplies are functions of the State department of agriculture. The enforcement of the medical practice law comes under the control of the State board of registration in medicine. The powers of the advisory council of health are purely advisory, the executive power of the State department of health being vested in the State commissioner of health.

Michigan - Organization of the State Department of Health in 1930

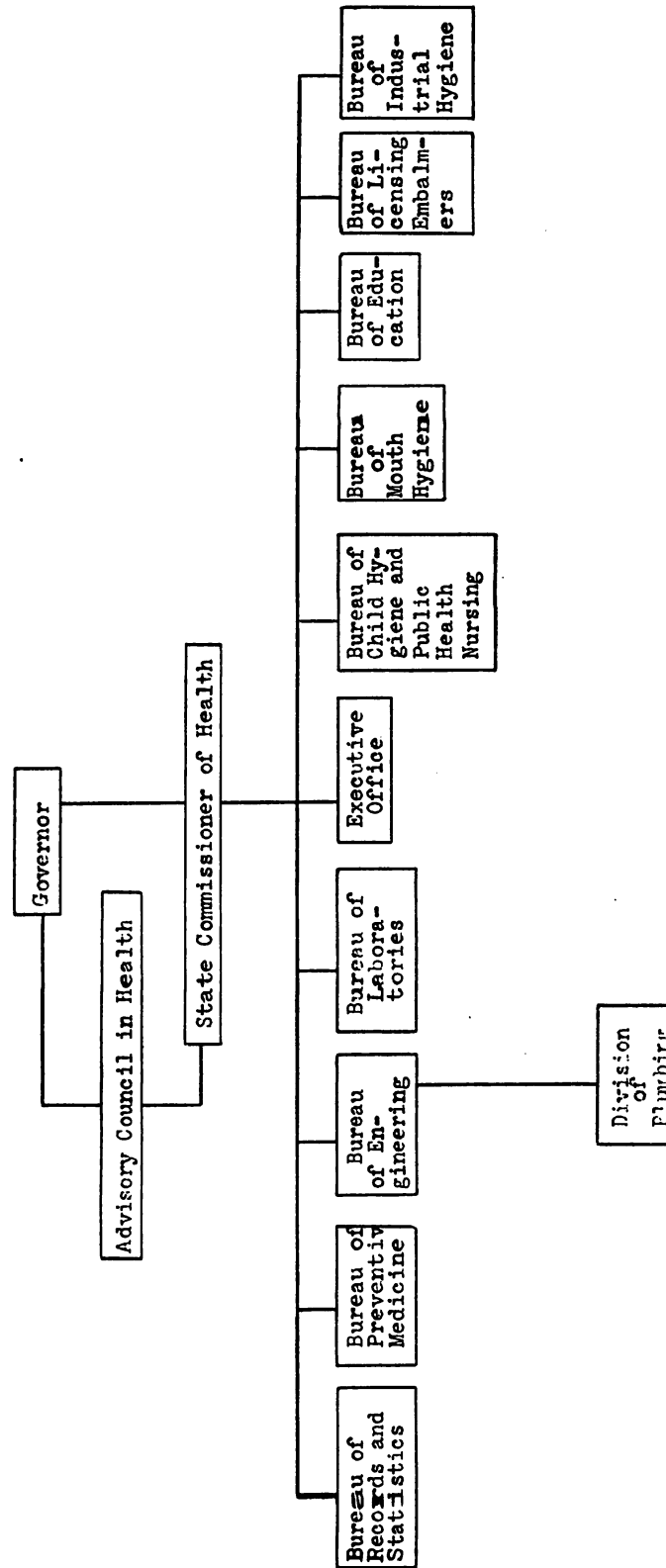


FIGURE 40

APPROPRIATIONS

The appropriation to the State department of health is not budgeted by bureaus. In addition to the appropriation made for the State department of health, moneys for emergencies may be obtained from the State general fund. The State legislature meets in January of odd years. The fiscal year of the State department of health ends June 30.

TABLE 151.—*Bureaus of the State department of health in 1930*¹

MICHIGAN

Bureaus	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Executive office.....	\$51,630	7	\$10,000	\$16,480	\$26,480
Bureau of preventive medicine.....	39,300	11	7,500	22,100	29,600
Rural sanitation.....	8,400	3	4,500	3,900	8,400
Bureau of records and statistics.....	35,600	19	5,500	25,400	30,900
Bureau of laboratories.....	185,470	78	7,000	122,320	129,320
Bureau of engineering.....	24,600	9	5,000	18,800	23,800
Bureau of child hygiene and public-health nursing	56,900	18	4,500	32,200	36,700
Bureau of education.....	18,200	5	3,500	7,300	10,800
Bureau of mouth hygiene.....	7,400	1	4,500	-----	4,500
Bureau of industrial hygiene.....	4,700	2	4,500	1,400	5,900
Bureau of licensing embalmers.....	3,700	1	2,500	-----	2,500

¹ Total appropriation, \$529,450; total appropriation exclusive of tuberculosis sanatoria funds, \$529,450; total appropriation from State legislature, \$512,900.

² Part-time official included.

EXECUTIVE OFFICE

Personnel.—In 1930 the staff of the administrative office consisted of the commissioner, a chief clerk, two stenographers, two mail clerks, and a chauffeur.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in State administration does not affect the tenure of personnel in the department. Appointments are made on the basis of the applicant's preparation for work and his efficiency.

Activities.—It is the function of the administrative office to supervise and coordinate all department activities and to maintain contact with the administrative and central governing boards of the State.

Local boards of health.—The State department of health exercises advisory power over the health officers of local townships. In case of epidemic, it may assume charge of the local health department. Michigan has 1,700 township health officers.

Disbursement of funds.—Funds are disbursed through the central accounting division of the State government.

Purchases.—Supplies are purchased by requisition through the central purchasing division of the State government.

BUREAU OF PREVENTIVE MEDICINE

On June 11, 1924, the bureau of communicable diseases was discontinued and the bureau of epidemiology was created. In 1930, the duties of the bureau of epidemiology were enlarged and its name was changed to the bureau of preventive medicine.

Personnel.—The director of the bureau of preventive medicine was assisted in 1930 by a field epidemiologist, a physician in charge of county health organizations, a physician-director of the training school for health officers, two stenographers, and three law-enforcement officers.

Reporting of diseases.—The local health officers report cases of communicable diseases daily to the State department of health.

Quarantine.—The enforcement of the quarantine regulations of the bureau of preventive medicine is a function of local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory.

Emergency fund.—There is no emergency fund, but the State administrative board has authority to grant money for use in controlling an epidemic.

Tuberculosis sanatoria.—The supervision of subsidies for county tuberculosis sanatoria is a function of the bureau of preventive medicine. Any county with a population of more than 30,000 is authorized to establish, maintain, and operate a sanatorium for the treatment of tuberculosis. Each county sanatorium which complies with the regulations laid down by the State department of health receives a subsidy from the State. The amount of the subsidies granted for the year ending June, 1929, was \$270,225. This amount is not included in the budget of the State department of health. In addition there is one State sanatorium with a capacity of 228 beds under the control of a separate board.

Tuberculosis clinics.—In 1929 there were no clinics or dispensaries under the supervision of the State department of health. Such activities are carried on by the State tuberculosis association.

Venereal disease control.—Cases of venereal disease must be reported. The State investigates cases and when necessary exercises advisory and police powers.

Clinics and treatments.—No venereal-disease clinics are conducted by the bureau of preventive medicine.

County health units.—An intensive campaign for the organization of full-time county health departments was begun July 1, 1929, and the legislature appropriated \$30,000 to subsidize the organization of such units. A law authorizing the counties to establish health departments had been passed in 1927 but no provisions had been made for subsidies. At the close of 1930, 21 counties were operating under the full-time plan. All county health departments are indorsed

and sponsored by the county medical societies. Nine other counties are organized into three health districts and are supported by private funds. It is possible that a bureau of rural sanitation will be organized during the current year. Present activities in this field are carried on by the bureau of preventive medicine. A training station for health officers was organized in July, 1929.

TABLE 152.—Data on full-time counties operating throughout 1929

MICHIGAN

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities of over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks
Oakland.....	1928	198,365	85,000	\$0.43	\$141,423,000	\$0.0006	Pontiac (61,831).....	3	2	—	8	5
Saginaw.....	1928	118,655	15,750	.13	127,075,000	.0001	Ferndale (18,984).....	1	—	1	2	1
Wexford.....	1928	16,965	16,300	.96	16,098,000	.0010	Saginaw (78,508).....	1	—	—	2	1
							Cadillac (11,090).....	1	—	—	—	—
Total.....		519,653	117,050	.23	284,596,000	.0004	.....	5	2	1	12	7

BUREAU OF RECORDS AND STATISTICS

Personnel.—The personnel of the bureau of records and statistics consisted, in 1930, of a director and 16 clerks.

Registration district.—The townships, incorporated villages, cities, State hospitals, and charitable and penal institutions constitute the primary registration districts.

Local registrars.—The law provides that the township, village, and city clerks shall be the local registrars except in cities having a full-time health officer, in which case the State commissioner of health may designate the health officer as the registrar. The local registrars appointed by the commissioner are paid a fee of 25 cents by the county for each certificate issued.

Registration area.—Michigan was admitted to the registration area for deaths in 1900 and to the registration area for births in 1915.

Reporting of deaths.—In 1929, 98 per cent of all deaths occurring in the State were reported. All of these were reported to the local registrars by undertakers. Deaths must be reported to the local registrar before burial and to the State registrar by the 4th of the month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in the State of Michigan.

Reporting of births.—In 1929 about 96 per cent of all births were reported; 98.7 per cent of these were reported by physicians and 1.3 per cent by midwives and others. Births must be reported to the

local registrar within five days and to the State registrar by the 4th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State supplies blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the local registrar must refer the certificate of death to the health officer or the coroner for immediate investigation prior to issuing the burial permit.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of registration and undertakers by the State commissioner of health. Midwives are not licensed in this State.

BUREAU OF LABORATORIES

The growth of the department laboratories since their founding in 1908, and especially since their reorganization in 1919, has been an outstanding feature of the development of the Michigan Department of Health.

Personnel.—The personnel of the bureau of laboratories consisted, in 1930, of a director, 2 immunologists, 18 bacteriologists, 20 technicians, a veterinarian, 19 laborers, 2 chemists, 2 stenographers, 11 clerks, 2 research assistants, and an instrument maker.

Branch laboratories.—There are two branch laboratories. One is located at Houghton, the other, established in 1926, is located at Grand Rapids for the western Michigan division. They are financed by appropriations from the State department of health.

Private laboratories.—Private laboratories which handle live pathogenic germs are registered by the bureau of laboratories. Approval is given to those laboratories whose methods of diagnosis and training of personnel meet certain standards.

Special laboratories.—No laboratories are maintained by the State department of health other than those conducted by the bureau of laboratories.

Activities.—In 1929 a total of 286,309 examinations was made by the State hygienic laboratory. A summary of diagnostic activities is given on pages 98–100.

Research.—Research work has been done in the treatment of infections by the use of bacteriophage, the treatment and prevention of scarlet fever by antitoxin and toxin, and the use of the Dick test.

Fees.—Fees are charged for qualitative uranalyses, autogenous vaccines, and medicolegal toxicology. These fees are turned over to the general fund of the State.

Biological products.—In 1929 the central laboratory manufactured 30,242 cubic centimeters of typhoid vaccine and 84,778 ampoules of silver nitrate for distribution. All biological products are now manufactured by the laboratory and are distributed free of charge. An analysis of the biological products issued is given on page 102. In addition to those listed on these pages, 996 packages of scarlet fever antitoxin, 13,032 cubic centimeters for the Dick test, and 22,809 cubic centimeters for scarlet fever toxin doses were distributed.

Educational activities.—Arrangements have been made with Olivet College, the Michigan Agricultural College, and the University of Michigan to enable students interested in public health to take as part of their work a six weeks' course given by the State laboratory. In return for the time spent by the laboratory staff a certain amount of routine work is required from the volunteer students. This group includes graduate students who wish to do hospital work and girls who wish to train for laboratory work with physicians. Each student in the laboratory is encouraged to do some research work as a background for daily routine.

BUREAU OF ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering consisted, in 1930, of a director, 5 engineers, an inspector, 3 stenographers, 2 clerks, and 1 plumbing inspector.

Public-water supplies.—The supervision of public-water supplies has been the most important activity of the bureau of engineering since its creation in 1913. Practically every water-supply system in the State has been inspected one or more times by the bureau representatives. In 1921 this bureau began advocating the treatment of public-water supplies with iodine for the prevention of simple goiter, and in cooperation with other bureaus of the department has made surveys to determine the prevalence of goiter throughout the State and analyzed and classified the records of this work. The mayor of each city operating waterworks must file a copy of the plans of the entire system with the State department of health. The bureau of sanitary engineering has the power to inspect such plants and to enforce rules and regulations governing the entire system of water works.

Analysis.—No regular analysis of public-water supplies is made.

Inspection.—Purification plants, of which there are over 70 in number, are inspected about twice yearly, but monthly reports giving daily operations and analytical details are required. These are carefully examined each month and instructions are given.

Stream-pollution control.—Stream-pollution control is supervised by a stream-control commission composed of the commissioner of health,

the commissioner of conservation, the attorney general, the highway commissioner, and the commissioner of agriculture.

Bottled waters.—The supervision of bottled waters comes under the control of the State department of agriculture.

Ice industry.—No regulations with regard to the ice industry have been passed.

Sewage disposal.—The State department of health has the same power of inspection, direction, and control of sewage-disposal systems as it has of public-water supplies, and the same system of monthly reports is maintained.

Tourist and summer camps.—Regulations have been passed by the State department of health concerning the water supply, sewage disposal, and general sanitary conditions of such camps.

Swimming pools and roadside water supplies.—As yet no legislation concerning swimming pools and roadside water supplies has been passed. Warning signs as to the safety of roadside supplies, however, are posted by the State department of health. During the summer months a traveling unit inspects roadside water supplies, resorts, and tourist camps. Resorts are given a rating according to their sanitary standards.

Division of plumbing.—By an act of the legislature passed in 1929 the registration and examination of plumbers is required. A division of the bureau of engineering has charge of this work.

BUREAU OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

Personnel.—The personnel of the bureau of child hygiene and public-health nursing consisted, in 1930, of a director, a supervisor of public-health nursing, 2 clinicians, 7 nurses, 2 directors of nursing districts, a special investigator, and 5 stenographers.

Prenatal and maternal hygiene.—A physician and a nurse conduct classes for women interested in maternal and infant welfare. Breast-feeding surveys stressing the importance of breast feeding in reducing infant mortality and morbidity have been conducted in counties with high infant mortality rates. Child-care classes have been organized among girls 10 to 15 years of age. This bureau is conducting a 2-year state-wide survey of puerperal deaths.

Midwifery.—One graduate nurse acts as inspector of midwives throughout the State and reports on the moral character, personal cleanliness, and equipment of midwives. A book of regulations governing midwives adopted by the advisory council of health in 1925 has been issued to each midwife.

Ophthalmia neonatorum.—All cases of ophthalmia neonatorum must be reported immediately by name and address to the State depart-

ment of health. In addition, the use of a silver nitrate solution in the eyes of the new born is required.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed by the State welfare commission.

Infant and preschool hygiene.—Many preschool clinics are conducted by local organizations in an attempt to correct the existing defects.

School hygiene.—The bureau of education conducts special lectures on school hygiene in the schools.

Public-health nursing.—A supervisory nurse is in charge of public-health nursing. Each county is authorized to employ public-health nurses and to appropriate such sums of money as it may deem necessary to hire such nurses and defray their expenses in connection with such employment.

Eligibility requirements.—County public-health nurses must be registered in the State and have had either four months' training in public-health nursing in a recognized school or eight months' experience in public-health nursing under the supervision of a recognized staff. The requirements for a local public-health nurse depend upon the locality.

Number of nurses.—There are 71 county nurses in 39 counties. These nurses are paid from local funds, but are under the supervision of the State department of health and report monthly to the department.

Nursing program.—The program of all public-health nurses throughout the State is becoming more educational, and bedside nursing by public-health nurses is being eliminated.

BUREAU OF EDUCATION

Personnel.—The personnel of the bureau of education consisted, in 1930, of a director, an assistant in charge of visual education, a field lecturer, and two stenographers.

Bulletins.—A bulletin is published each month and about 27 special pamphlets were issued in 1929.

Press service.—Special news releases are given to the newspapers.

Lectures.—A series of lectures is conducted during the winter in all county normal schools upon request. During 1929, directors of four bureaus of the State department of health and members of the staff gave lectures in 35 county normal schools. This activity is conducted in cooperation with the State department of public instruction.

Equipment.—The State department of health owns two stereopticons, about 100 slides, and a DeVry portable motion-picture machine.

Cooperation.—The State departments of health and of public instruction conduct joint demonstrations in education.

BUREAU OF MOUTH HYGIENE

The bureau of mouth hygiene was established by the advisory council on January 1, 1926.

Personnel.—The personnel of the bureau of mouth hygiene consisted, in 1930, of a director who was unassisted.

Activities.—The bureau has developed an educational program, a field program, and a supervisory program for dentistry in State institutions.

BUREAU OF INDUSTRIAL HYGIENE

Personnel.—The staff of the bureau of industrial hygiene consisted, in 1930, of a director and a part-time stenographer.

Activities.—The activities of the bureau consist in noting the general progress of health service in industries in the State; in establishing consultatory and advisory relations with the health departments of industries; and in aiding in the establishment of generally accepted standards for industrial hygiene in official practice. Surveys of over 100 industrial plants have been conducted.

BUREAU OF LICENSING EMBALMERS

Personnel.—A director of embalming was in charge of this bureau in 1930.

Activities.—The bureau conducts examinations for licensing embalmers, issues and renews licenses to subregistrars, issues permits for the removal of disinterred bodies, and enforces the burial laws which relate to public health.

TABLE 153.—Total appropriations for State department of health, by years ¹

Year	Total appropriation	Source of funds and amounts			
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Rockefeller Foundation
1915.....	\$32,000	\$32,000	-----	-----	-----
1916.....	82,000	82,000	-----	-----	-----
1917.....	82,000	82,000	-----	-----	-----
1918.....	38,500	38,500	-----	-----	-----
1919.....	38,500	38,500	-----	-----	-----
1920.....	236,433	236,433	-----	-----	-----
1921.....	291,697	291,697	-----	-----	-----
1922.....	319,603	319,603	-----	-----	-----
1923.....	382,075	326,250	\$7,808	\$48,017	-----
1924.....	444,059	408,450	868	34,741	-----
1925.....	451,579	418,971	868	34,741	-----
1926.....	459,766	425,025	-----	34,741	-----
1927.....	459,766	425,025	-----	34,741	-----
1928.....	447,891	406,650	-----	34,741	\$6,500
1929.....	452,691	406,650	-----	34,741	11,300
1930.....	529,450	512,900	3,500	-----	13,050

¹ Tabulation showing total budget, State legislative budget, and budgets by bureaus, not available, since appropriations are not budgeted by bureaus.

MINNESOTA

STATE BOARD OF HEALTH

History.—The Territorial law of 1854 incorporating the town of St. Paul authorized the city council to establish a board of health and to provide by ordinance for the abatement of nuisances and the control of contagious diseases. Thus the first board of health was established in Minnesota. In 1858, at the first session of the State legislature, similar local health administrations were established under State law, and in 1866 all township boards of supervisors were made boards of health for the townships. A law of 1883 empowered and a law of 1905 required the employment of a physician as township health officer.

Organization.—The law of 1872 created the State board of health and vital statistics. Under this law and its amendments the State board exists as it is to-day, consisting of nine members appointed by the governor, eight of whom are physicians.

Term of office and compensation.—The term of office of members of the board is three years; three terms expire each year. The members do not receive any compensation for their services, but their traveling expenses are paid.

Number of meetings.—Four regular meetings are held each year and special meetings may be held at such times and places as the secretary or any two members of the board shall appoint upon three days' notice to the members.

Executive committee.—The executive committee of the State board of health consists of the president, the vice-president, and three other members of the board. This committee meets on call of the executive officer or upon request of any member to make recommendations to the board, to act for the board in emergency and in matters delegated to it by the board, and to formulate work in advance of meetings.

EXECUTIVE OFFICER

Legal qualifications.—The secretary of the State board of health who is also the executive officer, is elected by the board. He may or may not be a member thereof. The present secretary is not a member. No legal qualifications for the office are specifically stated.

Term of office and compensation.—The executive officer serves at the pleasure of the board. He receives a yearly salary of \$5,400 and his traveling expenses within the State. Out-of-State travel requires special authority from the governor.

Power and duties.—As the executive officer, the secretary of the State board of health is charged with the enforcement of all lawful rules and orders of the board. As the secretary of the board, he is the custodian of the official records and documents of the board. He is also the State registrar of vital statistics and the administrative officer of the State in connection therewith.

Minnesota - Organization of the State Department of Health in 1930

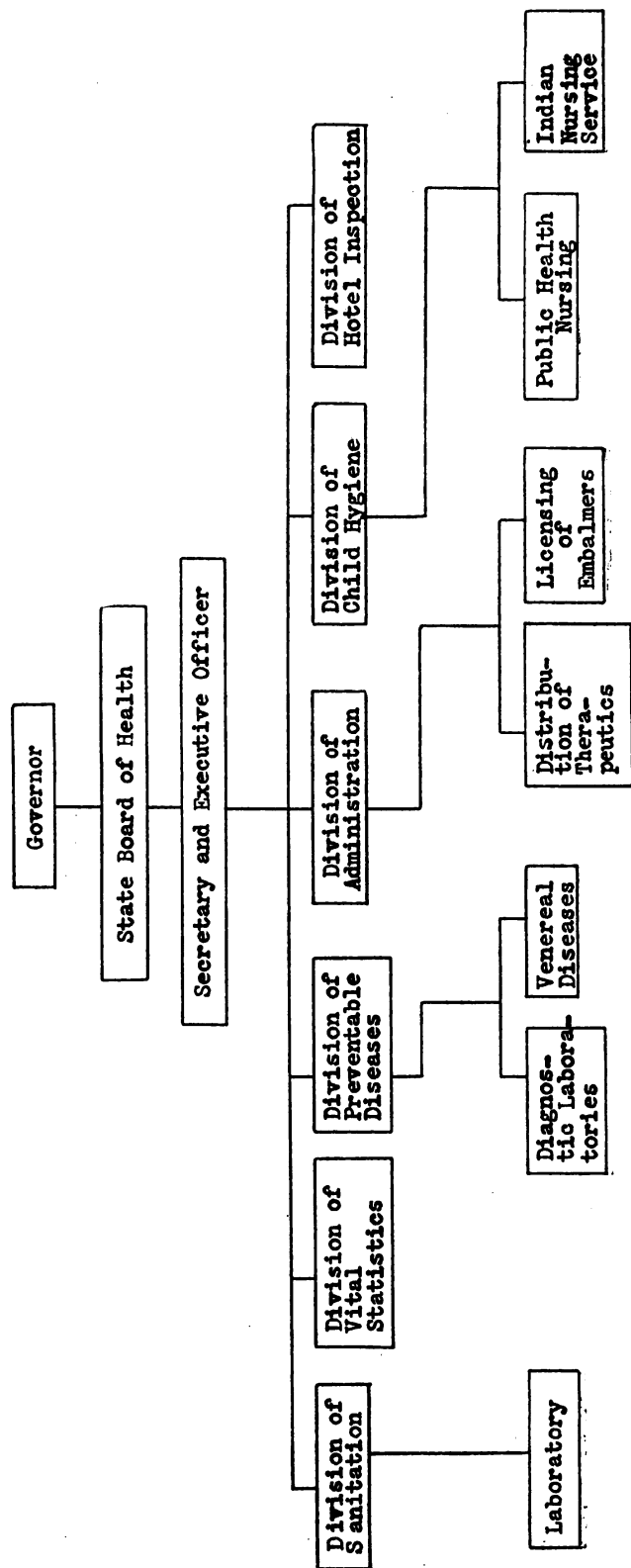


FIGURE 41

. POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State board of health may hold hearings and issue orders concerning offensive trades and pollution of domestic water supplies. It has the power to make and enforce rules and regulations concerning any matter for the preservation of the public health. It may enforce its regulation by requiring permits or licenses for any commercial rendering, scavenging, nuisances, sewage disposal, disposal of dead, maternity hospitals and infant homes, distribution and pollution of water, construction of public institutions and lodging houses, prevention of infant blindness, furnishing of vaccines, collection of vital statistics, construction and sanitation of industrial camps and tourists' camps. The regulations have the force of law except in so far as they may conflict with a statute or with the charter or ordinance of a city of the first class (St. Paul, Minneapolis, Duluth) upon the same subject. Rules and regulations adopted by the State board of barbers are subject to the approval of the State board of health. Administration of the laws relating to food adulteration and milk supplies are functions of the State dairy and food department. The State department of health, however, supervises the pasteurization and sale of such milk. The medical practice law and the licensing and supervision of midwives and masseurs are enforced by the State board of medical examiners.

APPROPRIATIONS

Appropriations by the legislature are made to the State board of health for specific purposes such as vital statistics, preventable-disease control, sanitation, etc. In addition, \$14,425 annually is appropriated for the purchase and distribution of free antitoxin and other biologicals. An appropriation of \$700 per annum for the supply of silver nitrate is included in the appropriation for preventable diseases. Aid to typhoid carriers excluded from certain dangerous occupations is provided through an appropriation made to the State industrial commission to be expended under the supervision of the State board of health. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

Fees collected.—The hotel inspection laws require that the license fees collected be paid into the State treasury. The legislature appropriates to the State department of health for hotel inspection work less than the annual amount of license fees received. The law authorizes the health department to expend the moneys received from the certification of milk, the branch laboratory at Duluth, and the venereal disease clinics at the State university. Fees for certified copies of birth and death certificates are paid into the State treasury.

TABLE 154.—*Divisions of the State department of health in 1930*¹

MINNESOTA

Divisions	Total bud- gets by divisions	Number of per- sonnel	Salary of director	Salary of other per- sonnel	Total salaries
Division of administration.....	\$24,747	7	\$5,400	\$11,480	\$16,880
Free antitoxin, etc.....	29,692	2			1,800
Licensing embalmers.....	4,306	1			1,800
Division of preventable diseases.....	64,761	32	4,500	42,320	46,820
Venereal diseases.....	19,773	11	3,000	10,664	13,664
Division of vital statistics.....	22,404	14	2,550	13,620	16,170
Division of sanitation.....	33,248	18	4,500	19,996	24,496
Division of child hygiene.....	32,700	13	2,500	18,240	20,740
Indian health work.....	10,000	3	(²)	5,640	5,640
Division of hotel inspection.....	38,028	11	3,600	18,540	22,140

¹ Total appropriation, \$279,659; total appropriation exclusive of tuberculosis sanatoria funds, \$279,659; State legislature appropriation including balance, receipts, and refunds, \$275,300.

² Officials included whose time is devoted to more than one activity.

³ Salary of epidemiologist in charge of venereal disease control.

⁴ Part-time director.

⁵ Under division of child hygiene.

DIVISION OF ADMINISTRATION

Personnel.—The personnel of the division of administration in 1930 consisted of the executive officer, the director of the division of administration, two clerks for the distribution of biologicals, a field agent for licensing embalmers, two stenographers, and three clerks.

Activities.—The division of administration, exclusive of the executive and administrative activities of the executive officer, carries on the activities concerned with records, accounts, purchases, the free distribution of biological products, and the administration of the embalmers' licensing act.

Civil Service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel in the department.

Appointments and salaries.—The executive officer recommends qualified candidates to the board when vacancies occur in the position of division directors. Each division director nominates his technical and clerical staff and recommends the appointment thereof by the board through the executive officer. All salaries are set by the board in the annual budget and no change can be made unless approved by the board. Salaries set by the board are subject to the approval of the State department of administration and finance and the latter's "Schedule of positions and salaries."

Duties of each department.—Under the provisions of the State reorganization act of 1925 authority was given to the department of administration and finance to impose upon officers, inspectors, and employees of any department duties which may by law be imposed on some other department when, in the judgment of the department of administration and finance, such work can be advantageously correlated.

Disbursement of funds.—Vouchers, upon the approval of the department of administration and finance, are paid by warrant of the State treasurer. The State auditor and treasurer are the disbursing agents.

Purchases.—Purchases are made through the commissioner of purchases, under the department of administration and finance, on requisition approved by the executive officer of the State board of health.

Supervision.—When the local health authorities fail to carry out the regulations or directions of the State department of health for the control of communicable disease, the department of health may employ, at the expense of the district involved, such assistance as it may deem necessary.

Full-time county health organization.—There was, in 1930, one full-time county health organization in Minnesota, the staff consisting of a health officer, five nurses, and a clerk.

Publicity.—Publicity measures are a responsibility of the executive officer.

Bulletins.—No regular State department of health periodical is published but special pamphlets on a variety of health subjects are issued from time to time, and the division of child hygiene publishes monthly news-letters.

Press service.—The State department of health does not have any regular press service. Newspapers accept releases submitted to them, as a rule.

Equipment.—The State board of health owns an attractoscope, about 800 slides, a motion-picture camera and projector, 16 motion-picture films, portable exhibits, 2 delineascopes, and a health reference library.

Cooperation.—The director of physical and health education of the State department of education consults with the executive officer and the directors of the various divisions of the State department of health in the preparation of the outline for health education to be applied in all public schools in the State.

DIVISION OF PREVENTABLE DISEASES

History.—In 1914 the board reorganized its work, creating the division of preventable diseases. The main and branch diagnostic laboratories and the Pasteur institute, formerly included under a laboratory division, and the division of epidemiology were transferred to this division. The division of epidemiology had been established in 1910 following the appointment of an epidemiologist in 1909. Prior to 1909 epidemiological field work had been performed by the executive officer of the board, by his office assistants, and by the members of the laboratory staff.

Personnel.—In 1930 the staff of the division of preventable diseases consisted of a director, a consultant in venereal diseases without salary, 3 epidemiologists, a special part-time field investigator, a chief of laboratories, 4 bacteriologists, a serologist, 2 technicians, a social worker, an office assistant, a part-time office assistant, a chief clerk and stenographer, 12 stenographers and clerks, a full-time and a part-time shipping clerk, 8 full-time and 1 part-time attendants, and 1 part-time janitor.

Reporting of cases.—Cases of communicable disease other than venereal disease must be reported to the State department of health by the local health officers within 24 hours of discovery. Cases of venereal disease may be reported by number if desired, but must be supplemented by name and address if the patient becomes delinquent. Except in Minneapolis, St. Paul, and Duluth, cases of venereal disease are reported by physicians directly to the division of preventable diseases.

Quarantine.—Quarantine measures determined by the State board of health must be enforced by local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory but may be required as a condition to school attendance where an epidemic exists and if approved by the local school board.

Emergency fund.—No emergency fund is provided, but the State executive council under authority given it by the legislature to incur indebtedness and issue bonds in public emergency or calamity to the amount of \$500,000 has the power to provide necessary moneys in cases of an epidemic. Under the authority given \$42,000 is still available.

Field epidemiology.—Epidemiological field investigations of communicable diseases are made upon requests from local physicians, health officers, other officials, or private citizens concerned or interested, and as may be indicated by reports received. During 1929 284 field investigations were made involving 370 sanitary districts in 76 counties.

Diagnostic laboratory.—Routine and special laboratory examinations of specimens, including animal tests of material from known or suspected cases of communicable diseases, are made. Special investigations are made also in relation to field problems, unusual cases, and special public-health problems which arise in the course of the work. During 1929 64,408 routine examinations were made in the main and branch laboratories. This does not include 56,572 examinations made for venereal diseases. Up to January, 1930, the venereal disease laboratory was continued under this division as a separate unit. A summary of diagnostic activities of the laboratories is given on pages 98-100.

Branch laboratory.—A branch laboratory at Duluth was established in 1905. This laboratory is financed through the State appropriation and aid from St. Louis County and from the city of Duluth.

Serums, vaccines, and drugs.—During 1929, 12,000 cubic centimeters of triple and 12,000 cubic centimeters of plain typhoid vaccine were manufactured in the main laboratories; 36,672 silver-nitrate ampules were manufactured and distributed free of charge. Free arsenic, mercury, and bismuth containing drugs for treatment of syphilis are furnished to physicians who donate their services to the care of indigent venereal-disease cases. Meningitis serum is also furnished free.

Communicable disease on dairy farms.—While the control of dairy farms, milk, and food handlers in relation to communicable disease is a function of the local health officers, the division of preventable diseases continuously gives much assistance in this work through its laboratory and field service.

Control of typhoid carriers.—With the aid of the local health authorities the division of preventable diseases actively supervises chronic typhoid carriers and typhoid convalescents. From January 1, 1913, to December 31, 1929, 203 typhoid carriers were identified, exclusive of those in State institutions. To these carriers are traceable 930 cases and 63 deaths. Since 1921, 175 dairy farms involving 44 chronic carriers and 131 recovered cases have been placed under special supervision. By action of the legislature in 1925, a fund has been available continuously for the aid of certain typhoid carriers who, for the protection of the public, are compelled under the law to give up a chosen occupation, such as handling of milk or ready-to-eat food. To date eight persons have received aid; four of these were receiving aid January 1, 1930.

Tuberculosis control.—No special division for tuberculosis control is maintained in the State department of health. The funds available for communicable disease control permit of but a limited amount of work relating to tuberculosis. During 1929 the epidemiologists of the division of preventable diseases made 20 field investigations of tuberculosis. These investigations are regarded as emergency measures only. For the use of health officers, sanatorium authorities, public-health nurses, etc., the division keeps up-to-date lists of tuberculosis cases reported since 1913; both those still living and those who have died are reported. The lists are loaned on request to the active tuberculosis workers to be returned after use.

Sanatoria.—One State sanatorium with a capacity of 315 beds and 14 county sanatoria with a total capacity of 1,408 beds are maintained under the supervision of the State department of public institutions of the State board of control. The State subsidizes each county sanatorium up to \$50,000 for construction. In 1930 an appropriation of \$76,000 was made to the State sanatorium. One Federal sana-

torium with 80 beds for care of Indian children is maintained under the United States Indian Bureau. The United States Veterans' Bureau hospital has 276 beds for tuberculosis patients. There are also two private sanatoria with a total capacity of 87 beds.

Clinics.—No tuberculosis clinics are maintained under the supervision of the State department of health. During 1929 1,150 clinics were held at 18 stations by the department of public institutions, the Minnesota general hospital, the University of Minnesota, and the Minnesota public-health association. A total of 14,802 persons was examined at these clinics.

Venereal-disease control.—On October 1, 1929, the work of the former division of venereal diseases, together with the equipment and a reduced personnel, was transferred to the division of preventable diseases. Investigation and control of sources of infection are required by regulation. When necessary, infected persons are quarantined.

Venereal disease clinics.—On December 1, 1929, the State department of health turned over to the university hospital the last of its previously organized venereal disease clinics, thus completing its original plan of decentralization of these clinics.

Social service.—During 1929, 496 new and 85 recurrent social-service cases were handled, and a total of 1,677 doses of arsenic, bismuth, and mercury containing drugs was distributed free of charge.

DIVISION OF VITAL STATISTICS

The vital statistics laws have been administered by the board since 1887. In 1915 a division of vital statistics was created.

Scope of work.—Vital statistics work in this State includes the receiving, correcting, recording, compiling, and preserving of records from 2,700 local registrars, 1,200 subregistrars (these are mostly licensed embalmers), attending physicians, midwives, unlicensed undertakers, etc. In 1929 the division of vital statistics handled 46,608 birth reports, 25,697 death reports, and 1,376 stillbirths. The Minnesota vital statistics law contains a section requiring all embalmers and all hospitals in the State to make monthly reports of births and deaths to the division of vital statistics. All such reports are promptly checked against the original records and correspondence is begun concerning cases which were not reported.

Personnel.—The secretary of the board is the State registrar of vital statistics ex officio but the administration of the department is under a full-time director. In 1930, the director was assisted by 13 full-time clerks and 1 vital statistics field agent paid by child hygiene division funds.

Registration district.—Each city, village, and township is a primary registration district.

Local registrars.—The township clerks and village recorders who are elected by popular vote serve as the local registrars. City health officers, who are chosen by the city council, are the local registrars for cities. Except in cities of more than 100,000, the local registrars receive a fee of 25 cents for each certificate issued. These fees are paid by the county.

Registration area.—The State was admitted to the registration area for deaths in 1910 and was 1 of the 10 States included in the original registration area for births established in 1915.

Reporting of deaths.—In 1929, 99 per cent of all deaths occurring in the State were reported. All deaths are reported by physicians and undertakers jointly. The death certificate is filed in advance if the burial permit is granted by the local registrar. If the permit is granted by the subregistrar, five days are allowed for the filing of the death certificate with the local registrar. Deaths are reported to the State registrar by the 10th of the following month.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in Minnesota.

Reporting of births.—In 1929 about 98 per cent of births occurring in the State were reported; 93 per cent of these were reported by physicians, 3 per cent by midwives, and 4 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the following month.

Stillbirths.—Stillbirths are recorded as births and as deaths.

Blanks and postage.—The State supplies the blanks for recording the returns and the person making the report provides the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner for investigation.

Burial permit.—A burial permit is necessary and may be issued either by the local or a subregistrar.

Licensing.—Physicians and midwives are licensed by the State board of medical examiners; embalmers are licensed by the State board of health.

PUBLIC HEALTH LABORATORIES

Engineering laboratory.—In 1914, at the time of the reorganization of the board of health, the laboratory activities pertaining to the division of sanitation were completely separated from the main diagnostic laboratories and placed under the division of sanitation. This engineering laboratory deals also with certified and pasteurized milk and suspected milk infections.

Diagnostic laboratories.—Also, in 1914, the main and branch diagnostic laboratories were placed under the division of preventable diseases. In 1921 on the closing of the Pasteur Institute, which had been inaugurated in 1907, the diagnosis of rabies was turned over to

the main laboratories. In October, 1929, the laboratory work and personnel of the former division of venereal diseases was placed under the division of preventable diseases.

Appropriation for laboratories.—At present the legislature includes in the separate appropriations to the board for the division of preventable diseases and the division of sanitation, funds for the support of their respective laboratories. The venereal disease laboratory is supported from a part of the general appropriation for the control of venereal diseases.

Private laboratories.—Private laboratories are not recognized by board of health regulations. Cultures for release must be examined by the State board laboratory.

Biological products.—Typhoid and paratyphoid vaccine, and ampules of silver nitrate are prepared by the laboratory of the division of preventable diseases. Other biological products distributed free of charge are purchased. Antitoxin is issued through distributing stations supervised by the division of administration; toxin-antitoxin is distributed directly to physicians by the division of administration; arsenic, bismuth, and mercury-containing drugs to be used for persons receiving free medical care; anti-meningococcus serum, typhoid vaccine, and silver nitrate ampules are issued through the division of preventable diseases. Smallpox vaccine and rabies treatments are not distributed by the State department of health. Local boards of health are authorized to provide vaccination in smallpox outbreaks and Pasteur treatments whenever needed. See analysis of biologicals distributed, page 102.

Fees.—No fee is charged for any service performed by the State department of health laboratories.

Research.—During 1929 research concerning tularaemia in game birds and certain other animals was carried on by the division of preventable diseases. Investigations concerning milk, pasteurization plants, fish life in polluted water, creamery waste, and sewage treatment were carried on by the division of sanitation. The former division of venereal diseases made special studies of blood tests.

DIVISION OF SANITATION

History.—In 1910 a division for engineering was established. In 1914 the division of sanitation was created and the director took over the function of the division of engineering and that part of the laboratory work of the State which related to problems of environmental sanitation including water supplies, milk supplies, sewage, and waste disposal.

Personnel.—The personnel of the division of sanitation in 1930 consisted of a director, three sanitary engineers, an associate sanitary engineer, an assistant sanitary engineer, two associate sanitarians,

two associate biologists, a chief clerk, two stenographers, two laboratory attendants, a part-time medical examiner, a part-time messenger and a part-time janitor.

Public water supplies and sewage disposal systems.—The work of the division includes the investigation and general supervision of water supplies, sewage and waste disposal systems, and stream pollution problems. The approval of the board is required for all plans and specifications of new systems.

Bottled waters.—The State department of health has control over bottled waters but has not adopted any regulations as yet.

Ice industry.—No legislation has been passed governing the ice industry.

Analyses.—Interstate railroad water supplies are investigated and the water analyzed once a year or oftener. Other public water supplies are investigated and analyzed on request.

Inspections.—Sewage treatment plants, and milk pasteurization plants are inspected annually, or as frequently as facilities will permit.

Camps, swimming pools, and roadside water supplies.—In general, the sanitation of camps, swimming pools, and roadside water supplies is under the supervision of the State department of health. Regulations have been passed governing the sanitation of tourist and industrial camps.

Milk supplies.—The division supervises the pasteurization of milk, including the examination of plans and specifications of new, and routine investigations of existing pasteurization plants. Assistance in the form of surveys, drafting of milk ordinances, and advice with regard to local supervision and enforcement of ordinances is given to municipalities in the establishment of local supervision of milk supplies.

Laboratory work.—A separate laboratory is maintained under the direction of the division of sanitation. During 1929, 2,388 water analyses, 4,237 milk analyses, 311 analyses of sewage and industrial wastes, and 112 examinations of special miscellaneous samples were made.

DIVISION OF CHILD HYGIENE

In 1921 the board of health was authorized and directed to cooperate with the Federal Children's Bureau, and on July 1, 1922, the division of child hygiene was created.

Personnel.—The personnel of the division of child hygiene in 1930 consisted of a part-time director, a superintendent of public-health nursing, four field nurses, three Indian field nurses, a vital-statistics field agent, a chief clerk, two stenographers, two clerks, one serving

full time and one half time, a part-time janitor, part-time miscellaneous clinic physicians, special investigators and helpers, and special nurses for class work.

Infant and preschool hygiene.—Classes in the care and feeding of infants and preschool children are conducted by the field nurses of this division throughout the State. Literature on infant care and feeding is distributed on request. A very limited number of infant and preschool clinics have been held. Preschool children are examined at the well-baby conferences conducted by the cities. In 1929 a total of 2,000 infants were examined.

Maternity and infant hygiene.—The State board of health appoints a State advisory board of maternity and infant hygiene and provides for county and district administrative boards. The duties of these boards are to plan and supervise the administration of maternal and infant hygiene subject to the provisions of the Federal and State laws and to the regulations of the State board of health. A correspondence course of 15 lessons in the hygiene of maternity and infancy has been conducted since 1923. Three Chippewa Indian nurses are employed for prenatal and infant educational work among their people. The State department of health supervises two Indian Bureau nurses also engaged in this work. Two hundred and nine thousand pieces of literature from the material of the division and from the Children's Bureau were sent out by the division during 1929.

Prenatal clinics.—The prenatal and maternal hygiene program consists of the distribution of monthly prenatal letters and other literature on prenatal care. Temporary or itinerant clinics are held occasionally.

Maternity hospitals and orphanages.—Maternity hospitals are licensed jointly by the State board of control and the State board of health. In 1929, 224 such hospitals with a total capacity of 2,257 beds were licensed. Orphanages are licensed by the State board of control.

Midwifery.—A survey made by the division of child hygiene in 1929 showed 102 registered midwives in the State. A decreasing amount of work is being done by midwives; they will probably gradually be eliminated. No supervision or instruction is given to these midwives.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported within six hours to the local health officer. It is the duty of each physician or midwife attending a confinement to treat the eyes of the newborn with a 1 per cent solution of silver nitrate.

School hygiene.—No provision for school hygiene work is made in the State department of health. The State department of education is responsible for the sanitary equipment and maintenance of public

schools. The division of sanitation of the State department of health actively assists in the aspects of this work which relate to water supplies and sewage disposal. In cooperation with the department of education and the State board of control a new health-record card was prepared by the board of health for use in the public schools of the State.

Public-health nursing.—The division of child hygiene, through its superintendent of public-health nursing, acts as a placement bureau to which counties and towns wishing to obtain health nurses may apply for qualified candidates. The superintendent advises the nurses as far as possible. Three field nurses spend part of their time in making advisory visits to local public-health nurses. Courses in mothercraft and in public-health instruction have been given in the teachers' normal training departments of high schools. An increasing amount of mothercraft work is being done in secondary schools.

Eligibility requirements.—A State public-health nurse must be a graduate nurse registered in the State and certified by the Minnesota certification committee. A local public-health nurse must be a graduate nurse registered in the State.

Number of nurses.—Excluding those in the three large cities of Duluth, Minneapolis, and St. Paul, there are 131 public health nurses in the State: 67 school nurses, 6 tuberculosis field nurses, 37 county nurses, 5 Indian nurses, 11 visiting nurses, 3 industrial nurses, 2 infant-welfare nurses. Of the 87 counties in the State, 34 are employing nurses.

DIVISION OF HOTEL INSPECTION

The State reorganization act of 1925 transferred hotel inspection work previously conducted under a separate department to the department of health.

Personnel.—The staff of the division of hotel inspection consists of the State hotel inspector, who serves as director, 6 deputy inspectors, 1 assistant sanitary engineer, 1 stenographer, and 2 clerks.

Activities.—The division of hotel inspection enforces the laws concerning the inspection and licensing of hotels, lodging houses, boarding houses, restaurants, and places of refreshment.

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TABLE 155.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

MINNESOTA

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$77,853	\$76,354	\$110,330	\$182,517	¹ \$156,207	¹ \$181,547	¹ \$190,830	¹ \$174,630
State legislative budget plus balance receipts, etc.....	76,403	75,154	108,555	180,142	130,948	162,937	167,200	163,191
General maintenance.....	23,637	14,532	14,506	17,822	16,443	19,112	19,655	21,713
Division of preventable diseases.....	23,969	38,425	39,594	46,424	45,527	52,306	58,040	61,342
Division of vital statistics.....	5,000	5,000	5,000	10,037	9,760	10,291	10,445	10,552
Division of sanitation.....	7,226	13,396	15,657	20,837	19,025	22,231	26,233	26,973
Typhoid-carrier fund.....	500	788	942	1,078	1,184	1,378	1,505	1,091
Free antitoxin.....	—	5,000	5,570	7,000	7,256	10,731	10,000	10,000
Infantile-paralysis fund.....	—	—	30,000	44,392	9,264	5,314	5,923	2,455
Division of venereal diseases.....	—	—	—	35,000	¹ 49,070	¹ 60,559	¹ 59,531	35,536
Prevention of blindness.....	—	—	—	1,000	1,000	1,000	1,000	1,054
Spanish influenza.....	—	—	—	—	10,843	1,293	—	—
Influenza emergency fund.....	—	—	—	—	—	2,800	1,623	—
Division of child hygiene.....	—	—	—	—	—	—	—	5,000

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	^{1,2} \$199,450	^{1,2} \$222,067	^{1,2} \$216,360	² \$264,239	² \$270,874	² \$302,567	² \$295,951	\$279,659
State legislative budget plus balance receipts, etc.....	164,418	174,562	173,770	231,420	242,510	259,928	251,037	275,300
General maintenance.....	21,286	20,717	20,368	20,492	21,019	23,131	22,792	24,747
Division of preventable diseases.....	58,640	59,453	58,050	58,370	59,106	63,176	64,227	64,761
Division of vital statistics.....	10,000	12,000	12,000	15,000	15,760	18,416	19,535	22,404
Division of sanitation.....	27,096	26,831	26,387	26,168	26,077	32,230	32,427	33,248
Typhoid-carrier fund.....	1,088	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Free antitoxin.....	10,000	10,000	10,000	22,500	27,431	23,272	30,098	29,692
Infantile-paralysis fund.....	512	—	—	—	—	—	—	—
Division of venereal diseases.....	¹ 42,230	¹ 36,265	¹ 33,063	34,683	34,606	39,541	20,738	19,773
Prevention of blindness.....	1,000	1,000	1,000	1,000	1,665	1,033	364	(³)
Division of child hygiene.....	² 27,397	² 55,797	² 55,385	² 46,949	² 42,970	² 58,122	² 60,718	32,700
Division of hotel inspection.....	—	—	—	39,078	42,241	42,956	41,753	38,028
Licensing embalmers.....	—	—	—	—	—	690	3,301	14,306
Indian health work.....	—	—	—	—	—	—	—	10,000

¹ U. S. Public Health Service funds included. (See Table 156.)² U. S. Children's Bureau funds included. (See Table 156.)³ Transferred to division of preventable diseases.TABLE 156.—*Total appropriations for State department of health, by years*

MINNESOTA

Year	Total appropriation	Source of funds and amounts						
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Balance previously applied carried forward	Miscellaneous receipts and refunds	Gifts and aid	University clinic fees
1915.....	\$77,853	\$74,500	—	—	—	\$1,903	\$1,450	—
1916.....	76,354	73,500	—	—	—	1,654	1,200	—
1917.....	110,330	103,500	—	—	\$3,201	1,854	1,775	—
1918.....	182,517	159,772	—	—	19,349	1,021	2,375	—
1919.....	156,207	92,708	\$22,569	—	36,907	1,333	2,690	—
1920.....	181,547	144,707	17,309	—	16,930	1,300	1,300	—
1921.....	190,830	144,707	19,572	—	20,858	1,635	4,059	—
1922.....	174,630	148,000	—	—	11,406	708	11,439	\$3,077
1923.....	199,450	143,000	5,081	\$23,228	16,753	1,084	6,723	3,581
1924.....	222,067	157,500	2,258	33,307	12,077	2,092	11,939	2,893
1925.....	216,360	157,500	565	30,050	12,565	645	12,539	2,496
1926.....	264,239	215,800	—	18,100	18,852	734	7,944	2,809
1927.....	270,874	215,800	—	18,600	25,688	748	7,570	2,468
1928.....	302,567	231,365	—	34,600	26,939	966	5,684	3,013
1929.....	295,951	195,897	—	35,100	53,757	3,393	5,200	2,604
1930.....	279,659	229,175	—	—	42,502	2,124	4,359	1,499

MISSISSIPPI

STATE BOARD OF HEALTH

Organization.—In 1924 a bill was passed reorganizing the State board of health. The board now consists of 10 members. The State medical association nominates to the governor, three men from each of the eight congressional districts in the State. From this number the governor appoints one member to the board from each congressional district. The State dental association nominates three dentists, from whom the governor appoints the ninth member of the board. From outside its own number the State board of health elects the tenth member, to serve as the executive officer of the department of health and as the secretary of the board.

Term of office and compensation.—The appointed members of the State board of health serve for a period of six years, the terms of three members expire every two years. The members of the State board of health receive \$3 a day when in session, actual traveling expenses, and pro rata of examination fees.

Meetings.—Two meetings are held each year and special meetings may be called by the secretary or at the request of the president of the board.

Executive committee.—An executive committee of the State board of health composed of the president, the secretary, and one other member of the board chosen by the president, meets when necessary to pass on all matters between the meetings of the board.

EXECUTIVE OFFICER

Legal qualifications.—The State health officer must be a physician versed in bacteriology, hygiene, and sanitary science, and otherwise fitted and equipped to execute the duties incumbent upon him by law. He must not engage in the practice of medicine while serving in the capacity of State health officer. He is elected by the State board of health from outside their number and becomes ex officio a member of the board and secretary.

Term of office and compensation.—The State health officer serves for six years and may succeed himself in office. He receives a salary of \$5,000 per year and is allowed approximately \$1,800 annually for his traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial power except in the case of quarantine. It has the authority to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, enforcement of the medical prac-

Mississippi - Organization of the State Department of Health in 1930

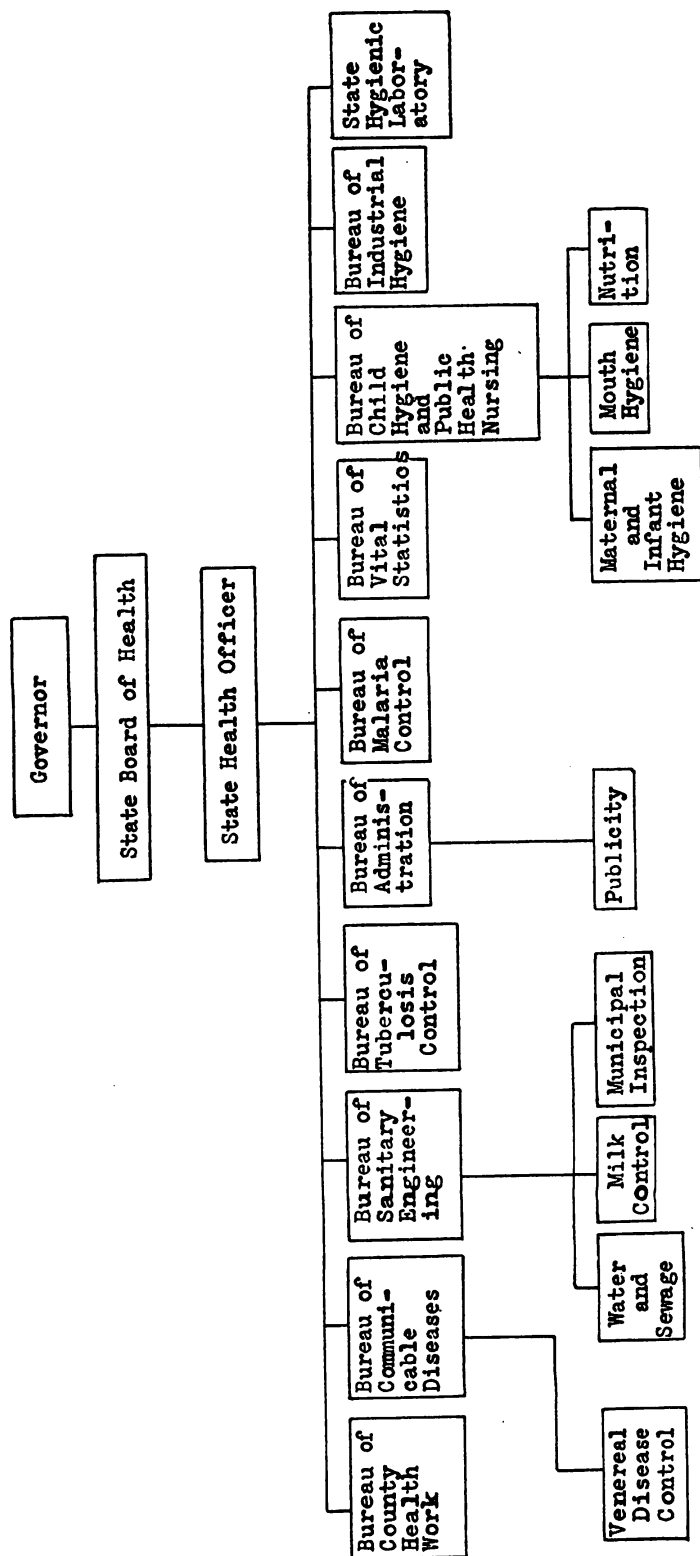


FIGURE 42

tice law, and midwifery. The State department of health has charge of municipal milk supplies and the sanitation of milk-product plants. The State department of agriculture has jurisdiction over the butter fat requirements of milk. The food and drugs laws are enforced by the department of chemistry.

APPROPRIATIONS

The State legislature makes an annual appropriation to the State department of health. This appropriation is apportioned to the various bureaus. The legislature meets in January of even years. The fiscal year of the health department ends June 30.

TABLE 157.—*Bureaus of the State department of health in 1930*¹

MISSISSIPPI

Bureaus	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$20,700	7	\$5,000	\$9,000	\$14,000
Bureau of county health work.....	² 153,486	² 68	4,000	75,200	79,200
Bureau of communicable diseases.....	10,000	3	4,800	2,340	7,140
Bureau of tuberculosis control.....	³ 235,000	52	5,000	62,548	67,548
Bureau of malaria control.....	22,250	4	4,800	10,800	15,600
Bureau of vital statistics.....	12,000	9	4,000	9,300	12,300
State hygienic laboratory.....	20,000	10	4,500	12,420	16,920
Bureau of sanitary engineering.....	10,800	4	4,200	7,200	11,400
Bureau of child hygiene and public-health nursing.....	27,500	16	3,300	20,000	23,300
Bureau of industrial hygiene.....	5,800	2	3,000	1,200	4,200

¹ Total appropriation, \$761,282; total appropriation exclusive of tuberculosis sanatorium funds, \$526,282; total State legislative appropriation, \$435,800; State legislative appropriation exclusive of tuberculosis sanatorium funds, \$200,800.

² Full-time county health departments included.

³ Sanatorium funds included.

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the bureau of administration in 1930 consisted of the State health officer, an accountant, a secretary, two supply-room clerks, an operator-mechanic in the printing division, and a porter.

Civil service.—The employees of the health department are not civil service appointees. A change in the State administration does not disturb the personnel of the department.

Disbursement of funds.—Funds are issued by written check on vouchers properly approved by the executive committee. The executive officer is the disbursing agent.

Purchases.—Supplies are purchased by the bureau of administration on approval of the executive officer.

Publicity.—The State health officer has charge of the publicity of the State department of health.

Press service.—From time to time articles from the State department of health are published in 142 State papers and in several papers

outside the State. Practically all papers in the State carry the weekly health letter which is sent out by the State health officer.

Bulletins.—A weekly health letter is issued by the health department and special pamphlets are published from time to time.

Equipment.—The State department of health owns a stereopticon, approximately 100 slides, 100 motion-picture films, 3 motion-picture machines, and 1 visual health education truck.

Cooperation.—The State departments of health and of education cooperate in conducting the school hygiene program.

BUREAU OF COUNTY HEALTH WORK

Personnel.—In 1930 the personnel of the bureau of county health work consisted of a director, whose salary is paid by the United States Public Health Service, and a secretary.

County health organizations.—In 1924 a bill was passed abolishing the local public-health agencies and creating county or district health departments. Each county is now authorized to create a department of health and to appoint a full-time director. In the event that any county is unable to have a department of health of its own on account of its size or lack of funds, two or more counties are authorized to join and constitute a sanitary district.

Supervision.—These county and district health departments have full control over all health matters, including those of all municipalities within their territory, but are subject to the supervision, direction, and jurisdiction of the State department of health. The present tendency of the State department of health is definitely toward decentralization, with a corresponding strengthening of the local health departments.

Full-time county health organizations.—The first full-time county health organization began work on January 1, 1917. Since that date there has been a steady growth in this important field and at the close of 1930 there were 28 full-time county organizations in operation.

Financial cooperation.—In the new plan of State cooperation the State agrees to bear 50 per cent of the cost during the first year of operation, 33½ per cent for the second year, and 20 per cent for each year thereafter. Financial cooperation by the State insures adequate supervision and uniformly effective service.

Full-time county laboratories.—It has been the policy of the State department of health to discourage the establishment of large county laboratories; the cost of maintenance is considered to be out of proportion to the public health results accomplished. Six out of the twenty-eight full-time county organizations have reasonably well-equipped public-health laboratories in which routine laboratory diagnostic work is done, such as the examination of specimens for tuberculosis, diphtheria, malaria, gonorrhea, and intestinal parasites. In two of the county laboratories, in addition to the routine diagnostic work already

enumerated, serological tests and water and milk analyses are made. As an accommodation to the local physicians both chemical and microscopic analyses are made.

Part-time counties.—Besides the full-time county units, each remaining county in the State has a part-time county health officer.

TABLE 158.—Data on full-time counties operating throughout 1929

MISSISSIPPI

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Harrison.....	1917	42,818	\$24,900	\$0.58	\$17,997,000	\$0.0014	Biloxi (14,294).....	1	1	1	1	1
Lee.....	1919	34,739	14,100	.41	10,332,000	.0014	.....	1	1	1	1	1
Bolivar.....	1920	69,720	19,050	.27	30,554,000	.0006	.....	1	2	1	1	1
Coahoma.....	1920	46,731	16,840	.36	25,267,000	.0007	Clarksdale (9,806).....	1	1	1	1	1
Union.....	1921	21,196	10,000	.47	5,862,000	.0017	.....	1	1	1	1	1
Forrest.....	1921	29,248	14,000	.48	15,716,000	.0009	Hattiesburg (18,170).....	1	1	1	1	1
Washington.....	1923	51,164	20,000	.39	26,371,000	.0008	Greenville (14,471).....	1	2	2	1	1
Hancock.....	1924	11,316	6,150	.54	5,479,000	.0011	.....	1	1	1	1	1
Jackson.....	1925	16,202	10,000	.62	7,915,000	.0013	.....	1	1	1	1	1
Pearl River.....	1925	18,996	8,600	.45	15,371,000	.0006	.....	1	1	1	1	1
Sharkey.....	1925	19,837	14,600	.74	11,864,000	.0012	.....	1	1	2	1	1
Hinds.....	1925	82,328	37,100	.45	31,785,000	.0012	Jackson (45,425).....	1	6	3	1	1
Leflore.....	1925	51,971	13,000	.25	19,544,000	.0007	Greenwood (10,790).....	1	1	2	2	1
Perry.....	1926	8,231	7,000	.85	6,170,000	.0012	.....	1	1	1	1	1
Lamar.....	1926	12,833	5,000	.39	6,965,000	.0007	.....	1	1	1	1	1
Clarke.....	1926	19,502	10,000	.51	7,573,000	.0013	.....	1	1	1	1	1
Holmes.....	1926	38,041	10,000	.26	11,470,000	.0009	.....	1	1	1	1	1
Tishomingo.....	1926	16,270	7,500	.46	4,011,000	.0019	.....	1	1	1	1	1
Sunflower.....	1927	64,365	22,875	.36	21,388,000	.0011	.....	2	1	3	1	1
Humphreys.....	1927	24,799	10,600	.43	9,492,000	.0011	.....	1	1	1	1	1
Issaquena.....	1927	(1)	(1)	(1)	(1)	(1)	.....	(1)	(1)	(1)	(1)	(1)
Warren.....	1927	35,531	18,800	.53	19,289,000	.0010	Vicksburg (22,441).....	1	1	1	1	1
Yazoo.....	1927	37,073	13,800	.37	12,651,000	.0011	.....	1	1	1	1	1
Lauderdale.....	1928	52,593	25,000	.48	24,422,000	.0010	Meridian (31,616).....	1	3	2	1	1
Adams.....	1929	22,183	15,000	.68	11,469,000	.0013	Natchez (13,310).....	1	2	1	1	1
Copiah.....	1929	28,672	7,500	.26	9,470,000	.0008	.....	1	1	1	1	1
Lincoln.....	1929	24,652	10,000	.41	8,430,000	.0012	.....	1	1	1	1	1
Monroe.....	1929	32,613	10,000	.31	11,814,000	.0008	.....	1	1	1	1	1
Total.....		922,241	381,415	.41	388,671,000	.0010	.....	28	29	31	13	1

¹ Included under Sharkey County.

BUREAU OF COMMUNICABLE DISEASES

Personnel.—In 1930 the staff of the bureau of communicable diseases consisted of a director, a secretary, and part-time clerk.

Activities.—Since March, 1929, this bureau has collected and tabulated the reports of the county health officers and individual physicians, and has submitted monthly statistical reports and quarterly narrative and statistical reports to the executive officer of the State department of health.

Reporting of diseases.—Individual physicians are required to report cases of communicable diseases by name to the county health officer within 24 hours after seeing a case. A report is required even though the disease is only suspected. Individual physicians are also required

to report all cases of notifiable diseases to the county health officer on the 1st day of each month. This in addition to the above-mentioned report. County health officers are required to report cases of communicable diseases weekly to the State department of health. In addition to this, county health officers are required to furnish the State department of health between the 1st and 10th of each month with a summary of the morbidity for their counties, including the individual morbidity report cards sent to them by the individual physicians.

Quarantine.—Quarantine measures except in the case of rabies in animals are under the control of the county health officer.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children where school boards have ordinances to that effect. In addition, county boards of supervisors may pass ordinances requiring all people living within a county to be vaccinated against smallpox.

Emergency fund.—There is no emergency fund for use in case of a severe epidemic.

Venereal disease control.—The bureau of venereal diseases was combined with the bureau of communicable diseases in June, 1926. Work in venereal disease control is limited to the distribution of certain publications, lectures to various groups, and the distribution of neoarsphenamine. In 1929 a survey was made which consisted of collecting 10,000 specimens of blood from colored people without respect to age or history of illness. The results of the survey have not been published as yet.

Clinic.—During the latter part of 1929 a venereal disease clinic was established by the health department. A total of 4,892 free treatments, of which 3,177 were salvarsan, was administered.

BUREAU OF TUBERCULOSIS CONTROL

Personnel.—The staff of the bureau of tuberculosis control in 1930 consisted of a superintendent, an assistant superintendent, 5 physicians, 37 nurses, a bacteriologist, a dietitian, a secretary, a business manager, a bookkeeper, an assistant bookkeeper, a stenographer, and a file clerk.

Sanatorium.—The State sanatorium for the prevention and treatment of tuberculosis with a capacity of 460 beds was established in 1916 and is conducted by the State board of health as part of the bureau of tuberculosis control. The sanatorium is conducted so as to be as nearly self-supporting as is consistent with the purpose of its creation. Approximately 200 beds are for indigent patients. During 1929 an additional appropriation was made to erect an auditorium to be used for church services, library, etc., and to the building of homes for the medical staff. The 1930 appropriation for the maintenance of this sanatorium was \$235,000.

Preventorium.—The 1929 legislature granted \$115,000 to be used to build and equip a preventorium for the care of undernourished children. No child with an active infection is permitted to enter the preventorium, it is only for those who have been exposed to a tubercular person and who are apt to develop the infection in later years. The preventorium provides for 60 children. At present there are four members on the staff.

Clinics.—There are no tuberculosis clinics under the supervision of the State department of health. During 1929, however, tuberculosis surveys were conducted in six counties.

Nurses.—Thirty-seven nurses are engaged in tuberculosis work for the sanatorium.

BUREAU OF MALARIA CONTROL

Personnel.—The staff of this bureau in 1930 consisted of a director, two field engineers, and a secretary.

Activities.—The work of the bureau of malaria control is conducted with and through the whole-time county health departments and chiefly centers in those counties lying in the Yazoo-Mississippi basin. The principal activities are minor drainage and screening measures, and popular education in the nature of malaria and its control. Consistent efforts are made to raise the standards of malaria diagnosis, and to improve the morbidity and mortality reporting of malaria cases.

BUREAU OF VITAL STATISTICS

The bureau of vital statistics was established in 1912 for the purpose of keeping the records of births, deaths, and notifiable diseases. In 1926, the bureau was authorized to keep records of marriages and divorces.

Personnel.—According to law the State health officer is ex officio the State registrar. A full-time director is in charge of the work of the bureau of vital statistics. He was assisted by a secretary and eight clerks in 1930.

Registration district.—The voting precinct or town is the primary registration district for births and deaths in this State. The county is the primary registration district for marriages and divorces.

Local registrars.—The local registrars of births and deaths are appointed by the State registrar on the recommendation of the county health officer. The local registrars receive a fee of 40 cents for each regular record filed on time and a fee of 25 cents for each delayed record, except in towns with a population of 5,000 or more. Fees due the local registrars are paid annually by the county on vouchers from the bureau of vital statistics.

Registration area.—In 1919 the State was admitted to the registration area for deaths and in 1921 to the registration area for births.

An important service has been rendered by the bureau of child hygiene and public-health nursing in training the negro midwives to register properly the births they attend. As a rule more negro children than white children are born in Mississippi each year. Prior to June 1, 1924, the bureau of vital statistics had no field representative to check the efficiency of registration. The employment of such an agent had produced a noticeable improvement in registration.

Reporting of deaths.—In 1929 about 90 per cent of the deaths occurring in the State were reported. About 50 per cent of the total number of deaths recorded are reported by undertakers and 50 per cent by others. Deaths must be reported to the local registrar before burial and to the State registrar by the 10th of each month.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in this State.

Reporting of births.—In 1929 about 90 per cent of the births occurring in the State were reported. The percentage of the total recorded by physicians was 54 per cent, by midwives 45.5 per cent, and by others 0.5 per cent. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Since January, 1930, stillbirths are recorded only as births.

Blanks and postage.—The bureau of vital statistics supplies the blanks for recording the returns and provides the postage if it is over two cents.

Unlawful death.—In case death is thought to be caused by unlawful means the matter is referred to the coroner by the local registrar.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of health; embalmers are licensed by the State board of undertakers and embalmers. Midwives are given permits to practice by the bureau of child hygiene and public health nursing.

STATE HYGIENIC LABORATORY

Personnel.—The personnel of the State hygienic laboratory in 1930 consisted of a director, two clerks, two bacteriologists, three technicians, and two laboratory attendants.

Branch laboratories.—No branch laboratories have been established. However, five of the full-time county health departments maintain and finance laboratories from their budgets. These laboratories are inspected by the director of laboratories of the State department of health.

Private laboratories.—The State department of health has no supervision over the private laboratories in the State. However, a few private laboratories which do some work for the local health depart-

ments are inspected by the director of laboratories to determine their fitness for such work.

Special laboratories.—No laboratories other than the State hygienic laboratory are maintained by the health department.

Activities.—During 1929, 77,261 specimens were examined. The most important single diagnostic activity of the laboratory is the Wassermann test. Next in importance is the analysis of milk under the standard milk ordinance and the standardization of such analysis in other laboratories in the State. Among other of the principal activities are agglutination tests for typhoid fever and undulant fever, examination of blood, feces, and urine cultures for typhoid bacilli, examinations for intestinal parasites and of cultures for diphtheria bacilli. A detailed summary of specimens examined is given on pages 98 to 100.

Fees.—No fee is charged for any service performed by the laboratory.

Biological products.—The laboratory manufactures typhoid vaccine, antirabic treatments, silver-nitrate ampules, and ampules of distilled water for the administration of neoarsphenamine. A summary of biologicals issued in 1929 is given on page 102.

Research.—During 1929 special work was done on undulant fever, the improvement of laboratory technique, and the standardization of technical procedures.

BUREAU OF SANITARY ENGINEERING

Personnel.—In 1930 the personnel of the bureau of sanitary engineering consisted of a director, an assistant sanitary engineer, a sanitary inspector, a veterinarian on milk work, and a secretary.

Activities.—The bureau of sanitary engineering was created by the State board of health for the purpose of correlating all of those activities of the State's health program which related to sanitary engineering or sanitation. The work of the bureau is fundamentally the protection of water supplies, the proper disposal of human waste, and the control of food-vending establishments. In the reorganization of this bureau the main phases of the work were grouped into three divisions: Water and sewage, milk control, and municipal inspections.

Public water supplies and sewage-disposal systems.—Plans for the construction, alteration, or extension of public water supplies or sewage-disposal systems must be submitted to the State department of health for approval.

Analysis.—Public water supplies are analyzed daily, weekly, monthly, semiannually, or annually, according to necessity.

Inspection.—Water-purification plants are inspected at least twice a year.

Bottled waters.—All waters used for bottling purposes must come within the standards fixed by the State board of health; the supplies of such waters must be approved by the board.

Ice industry.—The rules and regulations of the State board of health concerning public water supplies also apply to the water used for ice supplies. Such waters must be approved by the State department of health.

Milk control.—The State board of health adopted the standard milk ordinance in 1927 and placed its enforcement under the supervision of the bureau of sanitary engineering. This bureau works in cooperation with the municipalities, operating under the ordinance, of which there are now 30. No attempt is made to work with dairies which supply condenseries, cheese plants, etc., the efforts of the bureau are concentrated on milk consumed raw or that sent to pasteurizing plants.

Pasteurization.—The State department of health enforces the regulations concerning pasteurized milk.

Tuberculin testing.—The tuberculin testing of cattle is carried on by the livestock sanitary board.

Analysis.—The hygienic laboratory makes chemical and bacteriological milk analyses.

Dairies.—The inspection of dairies is a function of the bureau of sanitary engineering.

Camps and swimming pools.—Rules and regulations have been passed by the State board of health concerning the sanitary conditions of camps. The health department acts in an advisory capacity concerning swimming pools.

Roadside water supplies.—As yet no rules or regulations have been passed with regard to roadside water supplies.

Municipal inspection.—Formerly, municipal inspection was carried on under separate organization by a chief sanitary inspector. For reasons of economy and efficiency, the State board of health made it a division under the supervision of the bureau of sanitary engineering.

Food handlers.—Any person working in a place where food is handled may be requested to furnish the State department of health with a health certificate.

Inspection.—Places where food is handled, slaughterhouses, and cold-storage plants are inspected by the bureau of sanitary engineering.

Oyster industry.—Control of the oyster industry is maintained during the season, September to April, inclusive. Regulations are based on the minimum requirements of the United States Public Health Service, and certificates are issued annually by this bureau to plants complying with these requirements.

BUREAU OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

Organization.—The bureau of child hygiene was initiated in 1920 and combined with the bureau of public-health nursing in 1923.

Personnel.—The staff of the bureau of child hygiene and public-health nursing in 1930 consisted of an acting medical director, a supervising nurse, a supervisor of oral hygiene, 38 public-health nurses (30 connected with the full-time county health departments and 8 itinerant nurses), 6 oral hygienists, and 3 stenographers.

Maternal hygiene.—In 1929, 10 prenatal clinics were conducted regularly by full-time county health departments. A booklet, "Infant and Preschool Record," was sent to the parents of each new born whose birth was registered. The demand by the public for literature showed a steady increase and literature relative to maternal and infant hygiene was freely distributed. The number of home visits by the public health nurses to prenatal cases, showed an increase in 1929.

Midwifery.—In 1929 midwives attended approximately 50 per cent of the births. Intensive courses with the organization of midwives' clubs were further stressed and a correspondence course for midwives was conducted. In 10 counties prenatal conferences were held for midwives' cases. The practice by the State department of health of taking Wassermann tests of midwives, vaccinating them against smallpox and typhoid fever, and issuing permits yearly was continued. Since the initiation of the work the number of midwives has been reduced 50 per cent.

Ophthalmia neonatorum.—The State law requires the reporting within 6 hours of ophthalmia neonatorum to the local health officer. It also requires the State department of health to provide gratis to physicians and midwives a prophylactic with proper directions for use and administration.

Lying-in hospitals and orphanages.—There are no lying-in hospitals and the State board of health does not license orphanages.

Child-health conferences.—Child-health conferences were held during 1929 in all the counties where full-time health departments were functioning and in many other counties by local physicians and dentists. These conferences were sponsored by parent-teacher associations and other civic clubs, guided by a representative of the State department of health. Physical examination blanks, notices to parents, and literature were furnished, and correction of physical defects was advised. During 1929 a total of 35,039 children was examined at these conferences.

School hygiene.—In most instances, the medical examination of school children is conducted by the directors of the full-time county health departments. Hygiene classes were conducted in 26 counties during 1929; the course consisted of 18 hours of instruction. A certifi-

cate was granted by the State board of health to those who creditably passed a written and practical demonstration test.

Mouth hygiene.—Since January, 1923, when the division of mouth hygiene was established, yearly dental inspections have been made in schools by dentists who give their time for this purpose. These inspections have been enlarged to include preschool children in many communities. Dental hygienists, licensed by the board of dental examiners, are employed for educational and prophylactic work by both city school boards and county health departments.

Public-health nursing.—This work is directed by a supervisory nurse.

Eligibility requirements.—A public health nurse in Mississippi must be a graduate nurse in good standing, with adequate theoretical training and practical experience, and must be registered in the State. Membership in the State nurses' association is urged.

BUREAU OF INDUSTRIAL HYGIENE

Personnel.—The bureau of industrial hygiene is directed by the State factory inspector, who is a physician well trained in public health. In 1930 he was assisted by a secretary and a public-health nurse. A dental hygienist was added to the staff for several months.

Activities.—The registration of all industrial plants in the State employing women and children is required. Special attention is given to the sanitary conditions of such plants and to the installation of safety devices on hazardous machinery. During 1929 the men, women, and children working in the factories of the State were given thorough physical examinations by the director of the bureau assisted by a public-health nurse and a dental hygienist.

TABLE 159.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years*

MISSISSIPPI

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$23, 000	\$44, 700	\$56, 182	^{1 2} \$190, 600	^{1 2} \$142, 756	^{1 2 3 4} \$1,366, 709
Total budget exclusive of tuberculosis funds.....	23, 000	32, 200	32, 200	96, 106	89, 816	216, 109
State legislative budget exclusive of tuberculosis funds.....	23, 000	32, 200	32, 200	48, 684	48, 200	144, 000
Bureau of administration.....	10, 500	12, 000	12, 000	14, 000	14, 000	30, 000
Bureau of vital statistics.....	6, 000	6, 000	6, 000	8, 000	8, 000	12, 000
State hygienic laboratory.....	3, 300	6, 000	6, 000	10, 000	10, 000	20, 000
Bureau of sanitary engineering.....	3, 200	3, 200	3, 200	3, 600	3, 600	12, 000
Bureau of county health work.....	—	5, 000	5, 000	¹ 35, 732	¹ 46, 593	^{1 4} 87, 101
Bureau of tuberculosis control.....	—	12, 500	23, 982	94, 494	52, 940	³ 1, 150, 600
Bureau of industrial hygiene.....	—	—	—	3, 310	4, 150	5, 500
Bureau of venereal diseases.....	—	—	—	—	—	³ 39, 540
Bureau of child hygiene and public health nursing.....	—	—	—	—	—	10, 000

¹ Rockefeller Foundation funds included. (See Table 160.)

² United States Public Health Service funds included. (See Table 160.)

³ \$1,043,800 for construction of tuberculosis hospital.

⁴ Local funds included. (See Table 160.)

TABLE 159.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

MISSISSIPPI—Continued

Bureau	1921	1922	1923	1924	1925
Total budget.....	^{1 4 5} \$468, 552	^{1 4 5} \$279, 177	^{1 4 5} \$411, 754	^{1 4 5} \$372, 105	^{1 4 5} \$362, 668
Total budget exclusive of tuberculosis funds.....	216, 552	184, 377	214, 404	197, 105	187, 668
State legislative budget exclusive of tuberculosis funds.....	164, 000	140, 670	140, 000	125, 317	124, 800
Bureau of administration.....	30, 000	23, 000	23, 000	20, 700	20, 700
Bureau of vital statistics.....	12, 000	12, 000	12, 000	12, 000	¹ 12, 000
State hygienic laboratory.....	20, 000	20, 000	20, 000	20, 000	20, 000
Bureau of sanitary engineering.....	12, 000	12, 000	12, 000	10, 800	10, 800
Bureau of county health work.....	^{1 4} 79, 448	^{1 4} 53, 821	^{1 4} 61, 028	^{1 4} 53, 139	^{1 4} 48, 052
Bureau of tuberculosis control.....	252, 000	94, 800	197, 350	175, 000	175, 000
Bureau of industrial hygiene.....	5, 500	5, 500	5, 500	5, 200	5, 200
Bureau of venereal diseases.....	30, 675	19, 811	17, 791	10, 423	10, 000
Bureau of child hygiene and public health nursing.....	^{4 5} 30, 000	^{4 5} 41, 154	^{4 5} 61, 335	^{4 5} 62, 330	^{4 5} 61, 684

Bureau	1926	1927	1928	1929	1930
Total budget.....	^{1 2 5} \$381, 652	^{1 2 5} \$406, 956	^{1 2 5} \$524, 230	^{1 2 5} \$528, 420	^{1 2 4} \$761, 282
Total budget exclusive of tuberculosis funds.....	191, 652	216, 956	284, 230	303, 420	526, 282
State legislative budget exclusive of tuberculosis funds.....	140, 000	140, 000	190, 500	190, 600	200, 800
Bureau of administration.....	20, 700	20, 700	20, 700	20, 700	20, 700
Bureau of vital statistics.....	¹ 12, 000	¹ 12, 000	¹ 12, 000	¹ 12, 000	12, 000
State hygienic laboratory.....	20, 000	20, 000	20, 000	¹ 20, 000	¹ 20, 000
Bureau of sanitary engineering.....	10, 800	10, 800	10, 800	10, 800	10, 800
Bureau of county health work.....	^{1 2} 59, 476	^{1 2} 75, 542	^{1 2} 121, 979	^{1 2} 135, 804	^{1 2 4} 153, 486
Bureau of tuberculosis control.....	190, 000	190, 000	240, 000	225, 000	235, 000
Bureau of industrial hygiene.....	5, 800	5, 800	5, 700	5, 800	5, 800
Bureau of venereal diseases.....	10, 000	10, 000	10, 000	(⁵)	(⁵)
Bureau of child hygiene and public health nursing.....	⁵ 49, 076	⁵ 49, 076	⁵ 59, 076	⁵ 59, 076	27, 500
Bureau of malaria control.....	-----	-----	-----	¹ 15, 600	¹ 22, 250
Bureau of communicable diseases.....	-----	-----	-----	¹ 10, 000	10, 000

¹ Rockefeller Foundation funds included. (See Table 160.)² United States Public Health Service funds included. (See Table 160.)³ Local funds included. (See Table 160.)⁴ United States Children's Bureau funds included. (See Table 160.)⁵ Discontinued.TABLE 160.—*Total appropriations for State department of health, by years*

MISSISSIPPI

Year	Total appropriation	Appropriation exclusive of tuberculosis sanatorium funds	Source of funds and amounts							Tuberculosis sanatorium funds
			State legislature ¹	U. S. Public Health Service	U. S. Children's Bureau	County	Rockefeller Foundation	Fees	Sales	
1915.....	\$23, 000	\$23, 000	\$23, 000	-----	-----	-----	-----	-----	-----	-----
1916.....	44, 700	32, 200	32, 200	-----	-----	-----	-----	-----	-----	\$12, 500
1917.....	56, 182	32, 200	32, 200	-----	-----	-----	-----	-----	-----	23, 982
1918.....	190, 600	96, 106	48, 684	\$19, 439	-----	-----	\$23, 732	\$4, 251	-----	94, 494
1919.....	142, 756	89, 816	48, 200	416	-----	-----	34, 593	6, 607	-----	52, 940
1920.....	² 1, 366, 709	216, 109	144, 000	19, 697	-----	\$3, 393	47, 101	1, 918	-----	106, 800
1921.....	468, 552	216, 552	164, 000	-----	\$8, 770	2, 780	39, 448	1, 554	-----	252, 000
1922.....	279, 177	184, 377	140, 670	-----	12, 482	3, 028	26, 821	1, 376	-----	94, 800
1923.....	411, 754	214, 404	140, 000	-----	28, 189	10, 792	34, 028	1, 396	-----	197, 350
1924.....	372, 105	197, 105	125, 317	-----	26, 694	14, 716	28, 839	1, 539	-----	175, 000
1925.....	362, 668	187, 668	124, 800	-----	25, 813	10, 713	23, 753	1, 887	\$702	175, 000
1926.....	381, 652	191, 652	140, 000	4, 400	22, 076	-----	25, 176	-----	-----	190, 000
1927.....	406, 956	216, 956	140, 000	13, 638	22, 076	-----	41, 242	-----	-----	190, 000
1928.....	524, 230	284, 230	190, 500	23, 975	22, 076	-----	47, 679	-----	-----	240, 000
1929.....	528, 420	303, 420	190, 600	29, 240	22, 076	-----	61, 504	-----	-----	225, 000
1930.....	761, 282	526, 282	200, 800	22, 480	-----	254, 871	48, 131	-----	-----	235, 000

¹ Exclusive of amount for the tuberculosis sanatorium.² Of this amount \$1,043,800 was for the construction of a tuberculosis hospital.

MISSOURI

STATE BOARD OF HEALTH

Organization.—The State board of health of Missouri consists of seven persons, appointed by the governor. Five of the members must be graduates of reputable medical schools in good standing and possess recognized professional and scientific knowledge. They must be residents of the State for at least five years. No discrimination is made against the different systems of medicines recognized as reputable by the laws of the State.

Term of office and compensation.—The members are appointed for a term of four years. Four are appointed at the beginning and three in the middle of the governor's term. The members of the State board of health receive \$10 a day and necessary traveling expenses when in session.

Meetings.—Two regular sessions are held each year and usually four special meetings are called by the president of the board.

EXECUTIVE OFFICER

Legal qualifications.—The board appoints a secretary, usually from their number, who performs such duties as may be prescribed by the board or required by law. The secretary is also the State health commissioner and the executive officer of the board. He must be a physician skilled in sanitary science and experienced in public health administration.

Term of office and compensation.—The State health commissioner serves for a period of four years. He receives a yearly salary of \$7,400 and his traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has quasi judicial power, and is authorized to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, milk supplies, and midwifery. The control of foods and drugs is a function of the pure food and drugs department of the State government. The State department of health may revoke licenses in cases of violation of the medical practice law.

APPROPRIATIONS

The State legislature makes biennial appropriations directly to the State department of health. These appropriations are allotted to the various divisions by the department. Included in each appropriation made by the State legislature is a revolving fund of \$10,000 to \$20,000. The legislature meets in January of odd years. The fiscal year of the health department ends December 31.

Missouri - Organization of the State Department of Health in 1930

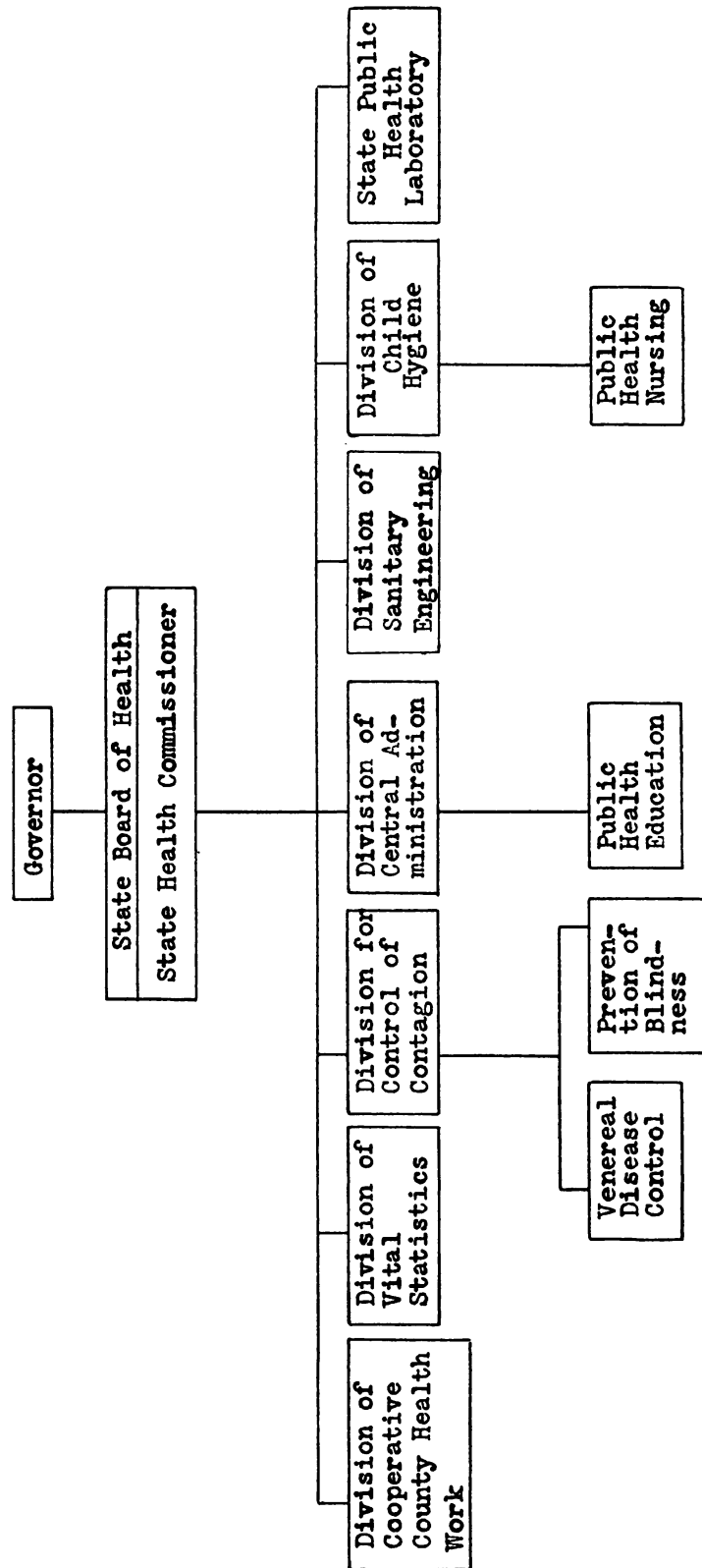


FIGURE 43

TABLE 161.—Divisions of the State department of health in 1930 ¹

MISSOURI

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of central administration.....	\$20,000	4	\$7,400	\$5,700	\$13,100
Division of cooperative county health work.....	187,252	36	3,600	51,595	55,195
Division for control of contagion.....	33,189	9	4,200	7,800	12,000
Division of vital statistics.....	32,000	15	2,100	17,900	20,000
State public health laboratory.....	21,000	8	4,200	6,900	11,100
Division of sanitary engineering.....	25,000	7	3,600	10,200	13,800
Division of child hygiene.....	35,750	10	6,000	14,400	20,400

¹ Total appropriation, \$354,191; total appropriation exclusive of tuberculosis sanatoria funds, \$354,191; State legislative appropriation, \$188,750.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the State health commissioner, the assistant State health commissioner, office secretary, multigraph operator, and file clerk.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel of the department.

Activities.—The State health commissioner has general supervision of all the divisions and direct charge of the county cooperative program.

Disbursement of funds.—Funds are disbursed through the State treasurer upon the authorization of the secretary of the State board of health.

Purchases.—Supplies are purchased directly by the State health department.

Publicity.—Each director assumes the responsibility for the educational activities of his division.

Press service.—The State department of health has an agreement with the Jefferson City representatives of the metropolitan papers.

Bulletins.—Bulletins are issued monthly; news-letters and special public-health leaflets are published occasionally.

Equipment.—The State department of health owns a stereopticon, 12 sets of slides, 10 motion-picture films, and portable exhibits.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF COOPERATIVE COUNTY HEALTH WORK

Personnel.—In 1930 the work of this division was directed by the assistant health commissioner. He was assisted by a secretary and a field supervisor.

Activities.—The division of cooperative county health work gives technical and financial assistance to counties in Missouri in order to encourage the establishment of full-time county health departments.

Appropriation for county health work.—In 1930 an appropriation of \$34,000 was made from the State treasury for the cooperative rural sanitation and child hygiene work of the State department of health.

Cooperative program.—The State department of health has entered into a cooperative arrangement with several counties for the purpose of establishing an adequate whole-time health service under competent direction. This cooperative plan involves financial aid, general supervision, and technical advice. The combined county funds must equal at least 50 per cent of the funds required to support the county health department. These funds should be derived preferably from the public revenue. From time to time local authorities are expected to increase their appropriations to provide for increase in personnel and to assume a larger percentage of the total budget. According to the population and wealth of the county, the personnel of the department, and the length of time the department has been in existence, the State contributes varying amounts not in excess of 50 per cent of the total budget, and in no instance exceeding \$5,000. The State's plan provides for a gradual withdrawal down to the amount the State department of health may consider a reasonable permanent subsidy. All agreements covering State subsidy are made contingent upon the condition that qualified persons be employed, that satisfactory service be rendered, and that money be made available by appropriations of the State legislature or allotments from extra State contributing agencies.

Full-time county health organizations.—The division of rural sanitation was created in July, 1921. There were no full-time health departments prior to this date. At the close of 1930 there were 13 full-time county health units.

Local health organizations.—In addition to the full-time county units, there are city, school, and part-time county health organizations. The State health department cooperates with the local health organizations and assists them in an advisory capacity. In case any health officer neglects or refuses to perform his duties, the State board of health may declare that office vacant.

DIVISION FOR CONTROL OF CONTAGION

Personnel.—The division for control of contagion was established in 1919. An epidemiologist in charge of the division in 1930 was assisted by a physician on general work, a trachoma specialist, five nurses, and a secretary.

TABLE 162.—Data on full-time counties operating throughout 1929

MISSOURI

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officer	Inspector	Nurse	Clerk	Others
Greene.....	1920	81,469	\$24,150	\$0.30	\$65,717,000	\$0.0004	Springfield (55,723).....	1	2	3	2	2
Nodaway.....	1922	26,502	8,457	.32	65,143,000	.0001	.....	1	1	1	1	1
New Madrid.....	1922	29,752	8,915	.30	29,972,000	.0003	.....	1	1	1	1	1
Dunklin.....	1922	35,495	6,737	.19	25,412,000	.0003	.....	1	1	1	1	1
St. Francois.....	1922	35,336	20,875	.59	37,999,000	.0005	.....	1	1	4	1	1
St. Louis.....	1923	200,538	25,241	.13	119,094,000	.0002	Jefferson City (20,889) Webster Groves (15,783). Maplewood (12,129). University (23,905). Independence (14,903) Kansas City (385,925).	1	3	5	1	1
Jackson.....	1925	453,760	24,520	.05	614,971,000	.00004	.....	1	2	3	1	1
Pemiscot.....	1925	36,214	8,947	.25	24,327,000	.0004	.....	1	1	1	1	1
Boone.....	1926	30,896	15,572	.50	41,556,000	.0004	Columbia (14,505).....	2	1	3	1	1
Marion.....	1926	33,322	14,200	.43	35,838,000	.0004	Hannibal (22,411).....	1	1	3	1	1
Scott.....	1927	24,759	8,300	.34	22,740,000	.0004	.....	1	1	1	1	1
Mississippi.....	1927	15,470	6,200	.40	21,786,000	.0003	.....	1	1	1	1	1
Total.....		1,003,513	172,114	.17	1,104,455,000	.0002	.....	13	12	27	11	3

Activities.—The duties of the division for control of contagion consist of collecting, tabulating, and utilizing the weekly morbidity reports from all county and local health officers; taking cognizance of and investigating any undue prevalence of disease; and preventing the spread of epidemics.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by the city and county health officers.

Quarantine.—Quarantine measures are under the control of local officials.

Smallpox vaccination.—Smallpox vaccination for school children is determined by local ordinances or school board regulations.

Emergency fund.—No State fund is provided for use in case of a severe outbreak of contagious disease. In such case the county court must provide the necessary funds.

Tuberculosis.—The control of tuberculosis is under the supervision of the division for control of contagion.

Sanatoria.—Two State tuberculosis sanatoria with a capacity of 295 beds are conducted by a special eleemosynary board. The biennial appropriation for the State tuberculosis hospital for 1929–30 was \$435,000. There are also two county sanatoria with 110 beds, three municipal sanatoria with 465 beds, and three private sanatoria with 185 beds in the State.

Clinics.—No tuberculosis clinics or dispensaries are maintained by the State department of health. Clinics were conducted during 1929 by each of the 13 full-time county units; a total of 1,061 patients was examined.

Venereal disease.—The venereal-disease program established in 1918 for the prevention, control, and eradication of venereal diseases, as classified under the headings of education, medical treatment, and law enforcement, has been continued to date under the division for control of contagion. All the cities in Missouri have adopted the standard venereal-disease ordinance, and some are provided with detention quarters for infected persons.

Clinics.—Nineteen venereal-disease clinics were operated in 1929 under the supervision of the State department of health. Some clinics charge registration fees.

Treatments.—Through physicians the State department of health furnishes free salvarsan for the treatment of the poor. During 1929, 81,880 free venereal-disease treatments were administered, of which 19,830 were salvarsan treatments.

Prevention of blindness.—The prevention of blindness is a special activity of the division for control of contagion. An intensive educational and treatment campaign against trachoma has been carried on with the assistance of the United States Public Health Service, through the use of printed literature, free traveling clinics, and hospitalization.

Clinics.—Twenty-five clinics for the prevention of blindness were conducted during 1929 in counties where trachoma is prevalent. A well-equipped laboratory in connection with the trachoma hospital is maintained to make investigation into the causes of the disease.

DIVISION OF VITAL STATISTICS

Personnel.—The State health commissioner is the State registrar of vital statistics. In 1930 he was assisted by an assistant registrar, 10 vital-statistics clerks, a tabulator, a statistician, and 2 temporary clerks.

Registration districts.—The city, incorporated town, and county (exclusive of cities and incorporated towns) are the primary registration districts in this State.

Local registrars.—Local registrars are chosen by the State registrar. They receive a fee of 25 cents for each record issued. Fees are paid by the counties upon vouchers issued by the State department of health.

Registration area.—Missouri was admitted to the registration area for deaths in 1911 and to the registration area for births in 1927.

Reporting of deaths.—In 1929, 92 per cent of the deaths occurring in the State were reported. Of these, 90 per cent were reported by physicians and 10 per cent by undertakers. Deaths must be reported to the local registrars before burial and to the State registrar by the 10th of the month.

Legal standards.—The model law, standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 95 per cent of births occurring in the State were reported. Of these, 95 per cent were reported by physicians, 4 per cent by midwives, and 1 per cent by others. Births must be reported to the local registrars within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns; the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner and jury.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians and midwives are licensed by the State board of health; undertakers are licensed by the State board of embalmers.

STATE PUBLIC-HEALTH LABORATORY

The public-health laboratory was formerly connected with the State university. In 1923 the State board of health moved the laboratory to the State capital.

Personnel.—In 1930 the staff of the public-health laboratory consisted of a director, who is a bacteriologist, an assistant bacteriologist, four technicians, three laboratory assistants, and an office secretary.

Branch laboratories.—No branch laboratories have been established.

Private laboratories.—The State public-health laboratory renders assistance to the private laboratories when requested but has no supervision over them.

Special laboratories.—The food and drugs commission, the oil commission, and the State highway commission maintain their own laboratories, which are separate from that of the State board of health.

Activities.—All bacteriological and serological examinations are made at the main laboratory. During 1929, 41,987 examinations were made by the diagnostic laboratory. These included examinations of tuberculosis sputa, Wassermann tests, and water analyses. A summary of activities is given on pages 98 to 100.

Biological products.—Silver nitrate ampules are made and issued free of charge by the laboratory. Other biological products are not manufactured but are distributed by the State board of health laboratory at contract price. The amounts issued during 1929 are given on page 102.

Fees.—A fee of \$1 is charged against the prison and eleemosynary boards for each Wassermann examination. These fees are allocated to the laboratory for added equipment. Fees are also charged for analyses of private water supplies.

DIVISION OF SANITARY ENGINEERING

The division of sanitary engineering was established in May, 1922.

Personnel.—In 1930 the staff of the division of sanitary engineering consisted of the chief engineer, 2 assistant engineers, 2 sanitary inspectors, a milk supervisor, and 2 office secretaries.

Activities.—The division of sanitary engineering furnishes engineering advice to municipalities, schools, summer resorts, and citizens on safe guarding water supplies from contamination, on effecting sanitary disposal of sewage, and on eliminating nuisances which are a menace to public health.

Public-water supplies and sewage-disposal systems.—Plans concerning the installation, extension, or alteration of public-water supply or sewage-disposal systems must be submitted to the State department of health for approval.

Analysis.—An analysis of public-water supplies is made monthly or annually, depending on the source of the water supply.

Inspection.—Water-purification plants are inspected annually.

Bottled waters.—Legislation has been passed concerning bottled waters.

Ice industry.—All natural or artificial ice offered for sale must conform in sanitary requirements to the bacteriological standards set for drinking water.

Camps, swimming pools, and roadside water supplies.—Rules and regulations have been made by the State department of health concerning the sanitation of camps, swimming pools, and roadside water supplies.

Milk laws.—The State departments of health and of agriculture cooperate in enforcing the milk laws. The State department of health exercises general supervision over cities which have model milk ordinances. Pasteurization laws are enforced, laboratory examinations of public-milk supplies are made, and dairies are inspected.

DIVISION OF CHILD HYGIENE

The division of child hygiene was created in 1919, but no money was appropriated for it until 1921. During this interim (1919–1921) the United States Public Health Service conducted child health studies and surveys.

Personnel.—In 1930 the work of the division of child hygiene was directed by the assistant State health commissioner, a pediatrician, two part-time pediatricians, a supervisor of nurses, a clerk, three nurses, and an office secretary.

Prenatal clinics.—Prenatal examinations are given by the health officers in the full-time county health units. During 1929, 5 tem-

porary and 15 permanent prenatal clinics were conducted by the State department of health.

Maternal hygiene.—Considerable work in maternal hygiene has been done along educational lines, prenatal letters have been distributed, and a series of classes for mothers have been conducted. During 1929, 1,010 mothers attended these classes.

Midwifery.—Since 1923 colored people have been moving very rapidly into the cotton regions of southeastern Missouri, and midwifery has become a problem. Instruction and supervision is now given to midwives.

Ophthalmia neonatorum.—In 1921 a law was passed requiring all physicians and midwives to use a 1 per cent solution of silver nitrate in the eyes of the new-born. Free silver nitrate ampules are distributed by the State laboratory.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed by the State board of charities and corrections.

Infant and preschool hygiene.—The examination of infants and preschool children is a summer activity. Most of the full-time health departments have regular monthly clinics conducted by the county health department personnel. During 1929, 166 temporary clinics were conducted by the division of child hygiene; 4,351 children were examined; 651 clinics were held in counties having full-time organizations or nursing service and 7,736 children were examined.

Crippled children's clinics.—During 1929 clinics for crippled children were conducted in 13 counties; 104 children were sent to hospitals for treatment.

School hygiene.—The medical examination of school children is conducted by the full-time county health officers and nurses in cooperation with local physicians. During 1929, 73,925 children were given complete examinations. Tonsil clinics have been financed by the county health departments or county medical societies.

Public-health nursing.—A law was passed in 1925 permitting county courts, city councils, etc., to appropriate money for public-health-nursing service. A supervisory service over all nurses paid entirely or in part by State funds and an advisory service for locally paid nurses are conducted by the director of public-health nursing of the division of child hygiene.

Eligibility requirements.—Registration in the State and a post-graduate course of at least four months in an approved school of public health nursing or eight months' public-health nursing experience under adequate supervision are the requirements for a State public-health nurse. A local public-health nurse must meet the same requirements except in some local school districts where registration alone is required.

TABLE 163.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

MISSOURI

Division	1915	1916	1917	1918	1919	1920
Total appropriation.....	\$17,905	\$20,396	\$22,855	\$19,880	¹ \$60,301	¹ \$89,320
State legislative budget ²	17,905	20,396	22,855	19,880	24,493	25,382
Division of central administration.....	4,900	4,900	4,900	4,900	4,900	6,000
Division of vital statistics.....	13,005	15,496	17,955	14,980	19,593	19,382
Division for control of contagion.....	-----	-----	-----	-----	¹ 35,808	¹ 63,938

Division	1921	1922	1923	1924	1925
Total appropriation.....	¹ \$69,754	¹ \$180,394	¹ \$227,340	¹ \$243,659	¹ \$256,522
State legislative budget ²	44,541	87,800	104,823	114,530	129,797
Division of central administration.....	8,700	11,900	20,000	20,000	25,000
Division of vital statistics.....	16,046	30,600	14,985	19,634	18,500
Division for control of contagion.....	¹ 20,471	¹ 23,170	¹ 44,682	¹ 36,419	¹ 38,100
Division of cooperative county health work.....	¹ 6,041	¹ 8,141	¹ 7,941	¹ 7,941	¹ 7,941
Full-time counties.....	¹ 14,200	¹ 69,783	¹ 79,573	¹ 79,698	¹ 93,540
State public-health laboratory.....	795	3,000	4,425	³ 10,566	³ 15,441
Division of child hygiene.....	3,500	⁴ 31,800	⁴ 37,734	⁴ 59,402	⁴ 43,000
Division of sanitary engineering.....	-----	3,000	³ 8,500	10,000	15,000

Division	1926	1927	1928	1929	1930
Total appropriation.....	¹ \$298,774	¹ \$336,512	¹ \$382,336	¹ \$365,294	¹ \$354,191
State legislative budget ²	103,016	132,578	147,579	188,750	188,750
Division of central administration.....	15,000	15,000	26,000	20,000	20,000
Division of vital statistics.....	14,539	29,357	32,630	40,906	32,000
Division for control of contagion.....	24,579	28,296	28,189	35,189	33,189
Division of cooperative county health work.....	¹ 100,276	¹ 118,979	¹ 147,773	¹ 165,349	¹ 187,252
Full-time counties.....	^(b)	^(b)	^(b)	^(b)	^(b)
State public health laboratory.....	15,380	17,480	17,480	21,000	21,000
Division of child hygiene.....	⁴ 45,000	⁴ 42,000	⁴ 43,374	⁴ 56,850	35,750
Division of sanitary engineering.....	15,000	17,000	18,500	26,000	25,000

¹ U. S. Public Health Service funds included. (See Table 164.)² Local funds included. (See Table 164.)³ Rockefeller Foundation funds included. (See Table 164.)⁴ U. S. Children's Bureau funds included. (See Table 164.)^(b) Included in each appropriation made by the State legislature is a revolving fund of \$10,000 to \$20,000.^(c) Included under the division of cooperative county health work.TABLE 164.—*Total appropriations for State department of health, by years*

MISSOURI

Year	Total appropriation	Source of funds and amounts				
		State legislature ¹	U. S. Public Health Service	U. S. Children's Bureau	County towns	Rockefeller Foundation
1915.....	\$17,905	\$17,905	-----	-----	-----	-----
1916.....	20,396	20,396	-----	-----	-----	-----
1917.....	22,855	22,855	-----	-----	-----	-----
1918.....	19,880	19,880	-----	-----	-----	-----
1919.....	60,301	24,493	³ 35,808	-----	-----	-----
1920.....	89,320	25,382	31,969	-----	³ 31,969	-----
1921.....	69,754	44,541	15,541	-----	1,800	⁷ \$7,871
1922.....	180,394	87,800	23,011	¹ \$18,000	38,683	12,500
1923.....	227,340	104,823	33,677	21,367	51,973	15,500
1924.....	243,659	114,530	30,164	32,201	53,906	12,858
1925.....	256,522	129,797	27,344	24,000	65,983	9,397
1926.....	298,775	103,016	32,906	25,000	126,831	11,022
1927.....	336,513	132,578	32,510	21,000	140,268	10,157
1928.....	382,336	147,579	35,811	24,187	161,898	12,861
1929.....	365,294	188,750	32,404	24,187	112,593	7,360
1930.....	354,191	188,750	31,579	-----	127,012	6,850

¹ Included in each appropriation made by the State legislature is a revolving fund of \$10,000 to \$20,000.

MONTANA

STATE BOARD OF HEALTH

Organization.—The State Board of Health of Montana was created in 1901, reorganized in 1907, and again reorganized in 1919. The board is now composed of five physicians appointed by the governor from a list of not less than five names submitted by the Montana Medical Association. Each member on the board must be qualified to practice medicine and surgery in the State.

Term of office and compensation.—The term of office is five years and the term of one member expires each year. Each member receives \$5 per diem while in session and his traveling expenses.

Meetings.—Two regular meetings are required by law. Special meetings may be called by the president when necessary.

EXECUTIVE OFFICER

Legal qualifications.—The secretary of the State board of health must be a registered physician and surgeon with experience in health work. He is elected by the board from outside its number and is the executive officer but not a member of the board.

Term of office and compensation.—The term of office of the State health officer is four years. He receives a yearly salary of \$5,000 and necessary traveling expenses.

Duties of executive officer.—The State health officer is the president of the State board of eugenics, a member of the orthopedic commission, chairman of the board of entomology, and chairman of the board of embalmers.

POWERS AND DUTIES OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The executive power of the State board of health is vested in the secretary. The State department of health has control of sanitation, water pollution, sewage disposal, food adulteration, communicable diseases, nuisances, and quarantine. Milk supplies are under the control of the livestock sanitary board. The enforcement of the medical practice law is a function of the medical examining board. Midwives are not recognized in this State.

APPROPRIATIONS

Up until 1917 the appropriation for the department of health was made in a lump sum, with the exception of the appropriation for the division of food and drugs. In 1917 an appropriation for the hygienic laboratory was made for the first time. This was continued until 1920, when the appropriations were again given in a lump sum. In 1919 a separate appropriation for the division of vital statistics

Montana - Organization of the State Department of Health in 1930

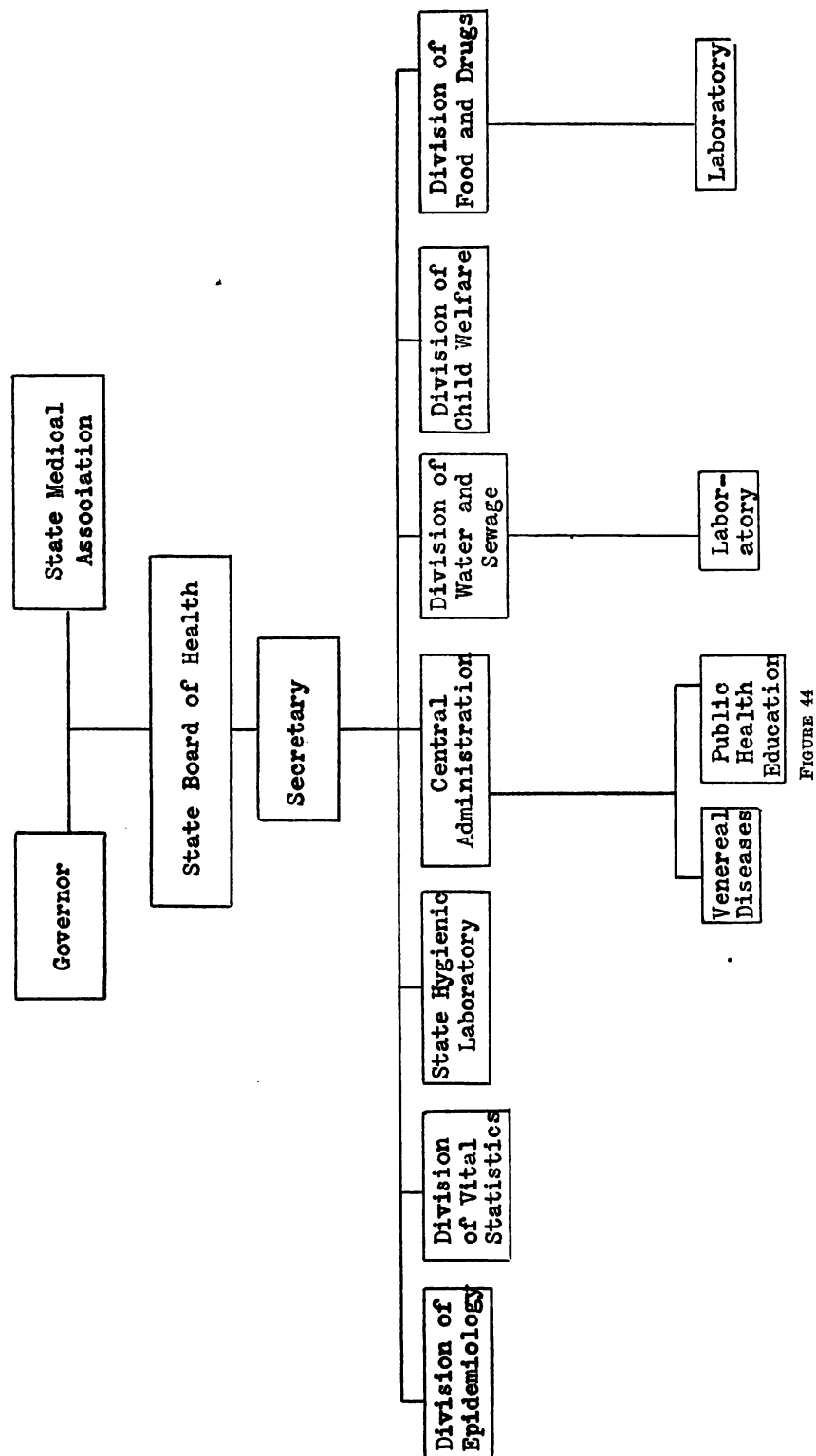


FIGURE 44

and a special appropriation of \$50,000 for the construction of a State board of health building were made. Appropriations are made for a single year. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 165.—*Divisions of the State department of health in 1930*¹

MONTANA

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$12,980	3	\$5,000	\$3,240	\$8,240
Division of epidemiology.....	7,000	2	4,200	1,500	5,700
Division of vital statistics.....	3,916	2	3,000	(²)	3,000
State hygienic laboratory.....	10,538	5	4,200	5,400	9,600
Division of water and sewage.....	6,781	2	3,600	1,800	5,400
Division of child welfare.....	15,000	3	3,000	10,344	13,344
Division of food and drugs.....	7,199	2	2,700	1,500	4,200

¹ Total appropriation, \$63,900; total appropriation exclusive of tuberculosis sanatorium funds, \$63,900 State legislature appropriation, \$60,400.

² Officials included whose time is devoted to more than one activity.

³ Paid by the division of child welfare.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office consists of the secretary of the State board of health, an accountant, and a secretary.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect tenure of personnel in the department.

Disbursement of funds.—Claims are filed with the board of examiners. If approved, they go to the State auditor and are paid by the treasurer.

Purchases.—Purchases are made through the general State purchasing agent.

Full-time county health work.—There is no separate division for supervision of county health work. The State health officer supervises the activities carried on by the four full-time county units and by the incorporated towns. The total personnel of the four full-time units consists of four county health officers, two county health inspectors, eight county health nurses, and four clerks.

Supervision.—In general the local health units are supervised by the State department of health. If they fail to act, the State assumes authority at the cost of the local government. The State board of health has the authority to order the dismissal of a local or county health officer for nonperformance of duty, but has no authority to make an appointment. Reports from the local organizations are required and their work is checked once a year. Aid is given upon request.

TABLE 166.—Data on full-time counties operating throughout 1929

MONTANA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Missoula.....	1920	21,980	\$11,910	.54	\$17,749,000	.0007	Missoula (12,442).....	1	1	2	1	1
Cascade.....	1920	40,555	29,290	.72	32,774,000	.0009	Great Falls (28,108)---	1	1	6	1	5
Lewis and Clarke	1921	18,318	11,000	.60	16,967,000	.0006	Helena (11,826).....	1	1	1	1	1
Total.....		80,853	52,200	.65	67,490,000	.0008	-----	3	2	9	3	7

Tuberculosis.—No separate division for the control of tuberculosis is maintained. The State department of health gives counsel and advice in cooperating with the State tuberculosis association.

Sanatorium.—A State tuberculosis sanatorium with a capacity of 180 beds is conducted by the board of examiners.

Clinics.—No tuberculosis clinics are conducted under the supervision of the State department of health.

Venereal-disease control.—From 1919 to 1923 a division of social hygiene was concerned with educational and suppressive measures essential to the prevention and spread of venereal disease. It was supported jointly by a State appropriation from the State board of health and a Federal appropriation from the United States Interdepartmental Social Hygiene Board. At present, however, there is no separate division for the control of venereal disease. The secretary and the laboratory director supervise the activities carried on by the State department of health in connection with this work.

Clinics and treatments.—Free drugs are distributed to indigents, but no regular venereal-disease clinics are conducted and no treatments are administered by the State department of health.

Public-health education.—Public-health education is under the direction of the secretary of the board.

Press service.—The newspapers of the State cooperate with the department of health by publishing articles on public-health activities.

Bulletins.—A bimonthly news letter and, from time to time, special pamphlets are published.

Equipment.—The State department of health owns a stereopticon, 9 sets of slides, 27 motion-picture films, and portable exhibits.

Cooperation.—The State departments of health and of education cooperate in making rules and regulations governing public-health nursing.

DIVISION OF EPIDEMIOLOGY

Personnel.—In 1919 the division of epidemiology was created, the position of epidemiologist was authorized, and an appropriation was made. The staff in 1930 consisted of an epidemiologist and a secretary.

Activities.—The duties of this division include the study of the prevalence of communicable disease, cooperation with local and county boards of health in diagnosis, the institution of preventive measures and general sanitary supervision.

Reporting of diseases.—Local and county health officers report cases of communicable diseases weekly to the State department of health.

Quarantine.—The local health officers have control of quarantine measures.

Smallpox vaccination.—Smallpox vaccination is not compulsory.

Emergency fund.—There is no emergency fund available for dealing with a severe or extensive outbreak of contagious disease.

DIVISION OF VITAL STATISTICS

A vital statistics act was passed in 1907 providing for the central registration of births and deaths. A separate appropriation was made in 1919, although previous to that date work had been carried on from the general appropriation.

Personnel.—By law the secretary of the board is also the State registrar of vital statistics. He was assisted in 1930 by a deputy State registrar and a clerk, who devotes part of his time to the division of child welfare.

Registration districts.—The primary registration districts are composed of the cities and towns.

Local registrars.—By law the local health officers are the local registrars. In case there is no local health officer, the local registrar is chosen by the State registrar. The local registrars are paid by the county a fee of 25 cents for each certificate issued.

Registration area.—Montana was admitted to the registration area for deaths in 1910 and to the registration area for births in 1922.

Reporting of deaths.—About 98 per cent of the deaths occurring in the State are reported; 99 per cent are reported by undertakers and 1 per cent by others. Deaths must be reported to the local registrar before burial. The local registrars report deaths to the State department of health before the 5th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—About 95 per cent of the births occurring in the State are reported; 93 per cent are reported by physicians, 5 per cent by midwives, and 2 per cent by others. Births must be reported

to the local registrar within 10 days and to the State department of health before the 5th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local registrars pay the postage.

Unlawful deaths.—In case death is thought to be caused by unlawful or suspicious means, the matter is referred to the coroner by the local registrar.

Burial permit.—Burial permits are required and are issued by the local registrar.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State board of health; midwives are not licensed in this State.

STATE HYGIENIC LABORATORY

Personnel.—The staff of the hygienic laboratory in 1930 consisted of a director, a secretary, a technician, a consulting bacteriologist, and a full-time helper.

Branch and private laboratories.—No branch laboratories have been established and the State department of health has no supervision over the private laboratories in the State.

Special laboratories.—A cut was made in the 1923-24 appropriation and it was found that by consolidating the activities of the water and hygienic laboratories a reduction in the expenses could be effected. The food and drugs laboratory and the water and sewage laboratory are operated in the State board of health building but under their respective divisions.

Activities.—The purpose of the laboratory is essentially that of assisting physicians in the diagnosis of disease by the bacteriological examinations of cultures or secretions and the pathological examinations of tissues. During 1929, 21,125 examinations were made by the hygienic laboratory. The chief examinations are typhoid-culture and diphtheria examinations, and Wassermann tests. A summary of diagnostic activities during 1929 is given on pages 98 to 100.

Fees.—All laboratory service is furnished to physicians free of charge.

Biological products.—Biological products are not manufactured or distributed with the exceptions of diphtheria antitoxin, which is distributed free to indigents, and silver-nitrate ampules, which are issued free through the division of child welfare of the State department of health. The amounts distributed in 1929 were not recorded.

DIVISION OF WATER AND SEWAGE

Personnel.—In 1930 the staff of the division of water and sewage consisted of a director and an assistant.

Public water supplies.—The division of water and sewage has general supervision of all public water supplies throughout the State and offers advice on all projects where water analyses are necessary or desirable.

Bottled waters.—The State department of health has the power to inspect annually the sources of bottled waters and the plants where such waters are prepared for sale.

Analysis.—Public water supplies are analyzed twice a month or twice a year, depending on the type of the supply.

Inspection.—Water-purification plants are inspected twice a year.

Ice industry.—Waters from which artificial ice is manufactured must be approved by the State department of health.

Sewage disposal.—The division of water and sewage has general supervision of sewage-disposal plants, and the State department of health approves all plans for construction.

Tourist camps.—The law requires the licensing of tourist camps by the State department of health. A fee of \$2 is charged for this service. The sanitation of such camps must meet the requirements of the State department of health.

Swimming pools and roadside water supplies.—There is no legislation concerning summer camps, roadside water supplies, or swimming pools.

Laboratory work.—From the organization of the division of water and sewage in 1917 until July, 1923, the laboratory work of this division was carried on at the State agricultural college at Bozeman. At that time the office and laboratory were moved to and established in the State board of health building at Helena. Assistance in laboratory operation is available to the division of food and drugs.

Schoolhouses.—Inspection and approval of plans for schoolhouses with regard to heating, lighting, and ventilation is also a function of this division.

DIVISION OF CHILD WELFARE

Personnel.—In 1930 the staff consisted of a director, 2 clerks, one of whom serves both this division and the division of vital statistics, a laboratory technician, a bookkeeper, 3 State field nurses, and 15 part-time county field nurses.

Activities.—In as much as the activities of the division of child welfare are largely educational in character, the work is carried on in close cooperation with the other divisions of the State department of health. In conjunction with the division of vital statistics a special effort has been made to check up on incomplete birth registration, and it is believed that the joint publicity of these two divisions will lead to more complete registration.

Prenatal clinics.—No prenatal clinics were held during 1929.

Midwives.—Letters containing instructions to midwives are sent to all whose names appear on the list of the vital-statistics division. There is, however, no supervision over midwives.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum are reported, but there are no regulations requiring the use of silver nitrate.

Lying-in hospitals and orphanages.—There are no maternity hospitals in this State. There is one orphanage maintained by the State.

Infant preschool hygiene.—In 1929, 400 conferences were conducted and approximately 6,343 infants and preschool children were examined.

School hygiene.—The annual medical examination of school children is required by law. These examinations are conducted by doctors and nurses employed either by the local board of education or by the State or local boards of health.

Public-health nursing.—The director of the division of child welfare supervises the nursing service of the State department of health.

Eligibility requirements.—All State and local public-health nurses must be graduates of a recognized school and registered in the State. They must have had at least a 1-year course in public health or its equivalent in training and experience.

DIVISION OF FOOD AND DRUGS

During the first part of 1922-23 samples of food and drugs were examined at the State college of agriculture and mechanic arts at Bozeman. On July 1, 1923, the equipment of the food and water laboratories belonging to the State board of health was moved to Helena and the laboratories were installed in the State board of health building.

Personnel.—The work of the division of food and drugs was carried on in 1930 by a director assisted by a clerk.

Food inspection.—The inspection of food is required by law and the work is carried on by local and county health officers. Permits for places where food is handled are required under the State pure food law.

Inspection.—The inspection of cold-storage plants is not required by law. The inspection of slaughter houses is a function of the livestock sanitary board.

Shellfish.—There are no regulations pertaining to sanitation of areas where shellfish are gathered.

Milk laws.—All laws concerning milk, cattle, and dairies are enforced by the State livestock sanitary board.

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Laboratory work.—The food and drugs laboratory of the State board of health examines butter samples for the dairy division of the State department of agriculture.

TABLE 167.—Total budget, State legislative budget for health work, and budgets by divisions, by years

MONTANA

Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$18,600	\$18,600	\$34,600	\$34,600	\$69,088	\$69,088
State legislative budget.....	18,600	18,600	34,600	34,600	64,980	64,980
Central administration.....	9,600	9,600	14,600	14,600	9,000	9,000
Division of food and drugs.....	9,000	9,000	6,000	6,000	6,000	6,000
State hygienic laboratory.....			5,000	5,000	8,000	8,000
Division of water and sewage.....			9,000	9,000	4,000	4,000
Division of child welfare.....			4,000	4,000	4,000	4,000
Division of vital statistics.....					3,000	3,000
Division of epidemiology.....					14,700	21,000
Division of social hygiene.....					17,288	17,763

Division	1921	1922	1923	1924	1925
Total budget.....	\$59,973	\$65,078	\$62,237	\$61,687	\$59,200
State legislative budget.....	57,740	57,740	43,686	43,686	42,700
Central administration.....	12,074	12,074	8,100	8,919	8,059
Division of food and drugs.....	4,690	4,690	3,425	5,287	4,184
State hygienic laboratory.....	8,000	10,597	8,100	9,015	7,533
Division of water and sewage.....	7,581	7,819	6,110	6,790	6,470
Division of child welfare.....	4,000	7,477	22,404	22,404	22,400
Division of vital statistics.....	2,741	2,900	1,975	2,448	5,000
Division of epidemiology.....	8,280	12,201	2,770	4,000	681
Division of social hygiene.....	3,038	6,252	2,045		

Division	1926	1927	1928	1929	1930
Total budget.....	\$58,900	\$57,650	\$65,725	\$70,300	\$63,900
State legislative budget.....	42,700	42,700	49,400	53,100	60,400
Central administration.....	7,400	7,300	10,500	12,979	12,980
Division of food and drugs.....	5,400	5,325	7,400	7,198	7,199
State hygienic laboratory.....	8,600	8,650	9,700	10,538	10,538
Division of water and sewage.....	5,900	5,125	7,300	6,785	6,781
Division of child welfare.....	22,400	22,400	22,400	22,400	15,000
Division of vital statistics.....	4,700	4,600	3,800	4,900	3,916
Division of epidemiology.....		1,425	7,300	7,000	7,000

¹ U. S. Public Health Service funds included. (See Table 168.)

² Sheppard-Towner funds included. (See Table 168.)

³ Rockefeller Foundation funds included. (See Table 168.)

TABLE 168.—Total appropriations for State department of health, by years

MONTANA

Year	Total appropriation	Source of funds and amounts			
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Rockefeller Foundation
1915.....	\$18,600	\$18,600			
1916.....	18,600	18,600			
1917.....	34,600	34,600			
1918.....	34,600	34,600			
1919.....	69,088	64,980	\$4,088		
1920.....	69,088	64,980	4,088		
1921.....	59,973	57,740	2,233		
1922.....	65,078	57,740	1,100	\$6,238	
1923.....	62,237	43,686	850	13,701	\$4,000
1924.....	61,687	43,686	300	13,701	4,000
1925.....	59,200	42,700	300	13,700	2,500
1926.....	58,900	42,700		13,700	2,500
1927.....	57,650	42,700		13,700	1,250
1928.....	65,725	49,400		13,700	2,625
1929.....	70,300	53,100		13,700	3,500
1930.....	63,900	60,400			3,500

NEBRASKA

BUREAU OF HEALTH

Organization.—There is no State board of health in Nebraska. The bureau of health is one division of the department of public welfare, which consists of three bureaus: The bureau of health, by far the largest; the bureau of examining boards; and the bureau of child welfare. The bureau of child welfare is concerned chiefly with juvenile court cases.

EXECUTIVE OFFICER

The executive and administrative head of the bureau of health is the director of public health. He is appointed by the governor.

Legal qualifications.—There are no legal qualifications for the director of public health, but it is customary to appoint a citizen of the State and a graduate of a medical school who has had experience in public health work.

Term of office and compensation.—The term of office of the director of public health corresponds to that of the governor which is two years. He receives a yearly salary of \$4,000 and necessary traveling expenses.

POWERS OF THE BUREAU OF HEALTH

Judicial, legislative, and executive powers.—The bureau of health has judicial power through the department of public welfare. It has supervision and control of all matters relating to sanitation and quarantine and is authorized to adopt such rules and regulations as will best serve to promote sanitation and prevent the introduction or spread of disease. It has no jurisdiction over midwifery and does not enforce the medical practice act. The enforcement of the milk laws and the food and drugs laws is a function of the department of agriculture.

APPROPRIATIONS

A specific sum is appropriated biennially by the State legislature for the bureau of health. The secretary of the department of public welfare apportions the appropriation to the bureau of health quarterly according to the needs of the bureau. The legislature meets in January of odd years. The fiscal year of the bureau of health ends June 30.

DIVISIONS OF THE BUREAU OF HEALTH

The bureau of health consists of the following four divisions: (1) Division of venereal diseases and epidemiology; (2) division of vital statistics; (3) State laboratory; and (4) division of child hygiene. The personnel, salaries, appropriations, and expenditures for these divisions are not available.

Nebraska - Organization of the Bureau of Health in 1930

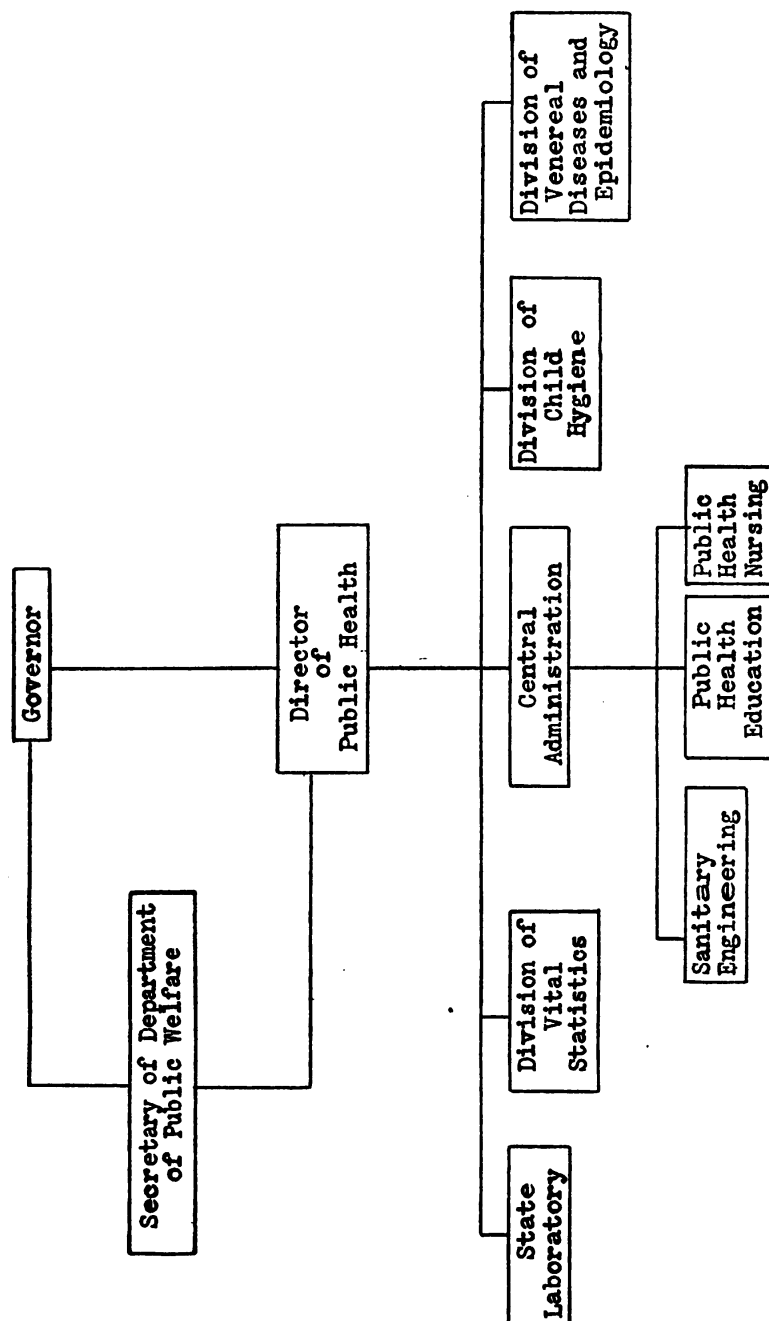


FIGURE 45

CENTRAL ADMINISTRATION

The director of public health is the executive and administrative officer.

Supervision.—If a local board fails or refuses to carry out the rules and regulations pertaining to health matters, the department of public welfare has the power to adopt and enforce special quarantine and sanitary regulations at the expense of the local government.

Disbursement of funds.—Vouchers originating from the director of public health are signed by the secretary of the department of public welfare, approved by the State auditor, and paid by the State treasurer.

Purchases.—Supplies are purchased by the State purchasing agent.

Sanitary engineering.—There is no separate division of sanitary engineering.

Public water supplies and sewage-disposal systems.—Plans must be submitted to the bureau of health for written approval before the installation, extension, or alteration of any waterworks or sewerage system.

Analysis.—Local officers of municipalities having public water supplies are required to send samples for analysis every six months.

Inspection.—Purification plants are not inspected by the bureau of health.

Bottled waters.—There is no specific legislation concerning bottled waters.

Ice industry.—Samples of natural ice must be sent to the bureau of health for analysis.

Camps.—Permits from local boards of health are necessary to maintain camps.

Swimming pools.—Complete plans for swimming pools must be submitted to the bureau of health for approval.

Roadside water supplies.—Regulations have been passed pertaining to roadside water supplies.

Publicity.—The director of public health is in charge of the publicity activities.

Press service.—The bureau of health has no regular press service, but items are sent to newspapers from time to time.

Bulletins.—No regular or special bulletins are issued.

Equipment.—The bureau of health does not own a stereopticon, motion-picture films, or slides. It has a portable exhibit on venereal disease.

Public-health nursing.—The director of public health supervises the nursing activities of the State. There is one field nurse employed by the division of child hygiene.

Eligibility requirements.—The standards required by the national organization of public-health nursing are advocated in Nebraska.

DIVISION OF VENEREAL DISEASES AND EPIDEMIOLOGY

The director of public health is collaborating epidemiologist for the United States Public Health Service.

Reporting of diseases.—Cases of communicable diseases are reported weekly by the local boards of health to the State bureau of health.

Quarantine.—Quarantine measures are under the control of the local boards of health unless they fail to act, in which case the State bureau of health takes charge of the work at the expense of the local government.

Smallpox vaccination.—Smallpox vaccination for school children is not compulsory except in the event of an outbreak, in which case the local boards of health may require it.

Emergency fund.—There is no emergency fund for use in case of an epidemic.

Venereal diseases.—The bureau of health is empowered to make such rules and regulations as are necessary to control and suppress venereal diseases. Direct reporting of cases is required.

Clinics.—Four clinics for venereal disease are operated under the supervision of the bureau of health.

Treatments.—Treatments are administered free of charge. During 1929, 6,020 salvarsan treatments were given.

Tuberculosis control.—A State tuberculosis sanatorium is maintained by the State board of control. The amount appropriated for this sanatorium in 1930 was \$81,000. In addition, there is one county sanatorium with a capacity of 28 beds.

Clinics.—No tuberculosis clinics are conducted in this State.

DIVISION OF VITAL STATISTICS

Registration districts.—Each city, village, and township is a primary registration district.

Local registrars.—Each registration district has a registrar who is appointed by the department of public welfare. These registrars are paid by the county commissioners a fee of 25 cents for each certificate issued.

Registration area.—In 1905 a law was passed including the registration of births and deaths among the duties of the bureau of health. In 1920 Nebraska was admitted to the registration areas for both births and deaths.

Reporting of deaths.—In 1929 about 98 per cent of the deaths occurring in the State were reported; of these, 99 per cent were reported by physicians, and 1 per cent by others. Deaths must be reported to the local registrars before burial and to the State registrar by the 5th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in Nebraska.

Reporting of births.—In 1929 about 95 per cent of the births occurring in the State were reported; of these, 98 per cent were reported by physicians, 1 per cent by midwives, and 1 per cent by others. Births must be reported to the local registrar within five days and to the State registrar by the 5th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health provides blanks for recording the returns and the local registrars provide postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the county coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians and undertakers are licensed by the department of public welfare. Midwives are not licensed.

STATE LABORATORY

Branch and private laboratories.—There is one branch laboratory which is financed through a special appropriation from the legislature. The bureau of health has no supervision over the private laboratories in the State.

Special laboratories.—No laboratories other than the main laboratory have been established by the bureau of health.

Activities.—During 1929, 10,450 examinations were made. The examinations were mainly Wassermann tests, examination of gonococcus smears and diphtheria cultures, and analyses of water samples. A summary of the examinations made is given on pages 98 to 100.

Fees.—No charge is made for any laboratory service.

Biological products.—Biological products are neither manufactured nor distributed by the bureau of health.

Research.—No research work was carried on by the State laboratory.

DIVISION OF CHILD HYGIENE

Health conferences.—Health conferences are conducted throughout the State. No prenatal clinics have been established.

Midwifery.—Midwifery is not a problem in this State. Comparatively few confinements are attended by midwives.

Ophthalmia neonatorum.—The use of silver salt in the eyes of the newborn is mandatory as a prophylactic measure against ophthalmia neonatorum.

Lying-in hospitals and orphanages.—Lying-in hospitals are licensed by the department of public welfare. Orphanages are inspected by the department of public welfare but are not licensed.

Infant and preschool hygiene.—No clinics have been established for infants.

School hygiene.—Medical examination of school children is conducted by local physicians and nurses.

TABLE 169.—Total appropriations for State department of health, by years ¹

NEBRASKA

Year	Total appropriation	Source of funds and amounts		Year	Total appropriation	Source of funds and amounts	
		State legislature	U. S. Children's Bureau			State legislature	U. S. Children's Bureau
1915.....	\$9,880	\$9,880	-----	1923.....	\$66,175	\$48,475	\$17,700
1916.....	9,880	9,880	-----	1924.....	41,409	34,000	7,409
1917.....	17,900	17,900	-----	1925.....	45,915	34,000	11,915
1918.....	17,900	17,900	-----	1926.....	45,380	32,400	12,980
1919.....	26,020	26,020	-----	1927.....	43,400	32,400	11,000
1920.....	26,020	26,020	-----	1928.....	43,400	32,400	11,000
1921.....	48,475	48,475	-----	1929.....	36,000	31,000	5,000
1922.....	48,475	48,475	-----	1930.....	31,000	31,000	-----

¹ Figures for tabulation showing the distribution of funds by divisions from 1915 to 1930 are not available

NEVADA

STATE BOARD OF HEALTH

Organization.—The State board of health is composed of five members. The governor and secretary of State are members ex officio, and the remaining three members, who are physicians, are appointed by the governor.

Term of office and compensation.—The members of the board serve for a period of four years; the term of office of one of the three medical members expires each year. The members of the board do not receive any compensation other than actual traveling expenses incurred while on official duty.

Meetings.—Regular meetings are held in January and July of each year. In addition, usually one special meeting each year is called by the governor, generally at the suggestion of the secretary of the board.

EXECUTIVE OFFICER

Legal qualifications.—The secretary of the board, who is the State health officer, is appointed by the governor from the membership of the board. He must be a registered physician of the State, versed in public health work and sanitation.

Term of office and compensation.—The executive officer serves for a period of four years and receives a yearly salary of \$2,500 and actual traveling expenses.

Nevada - Organization of the State Department of Health in 1930

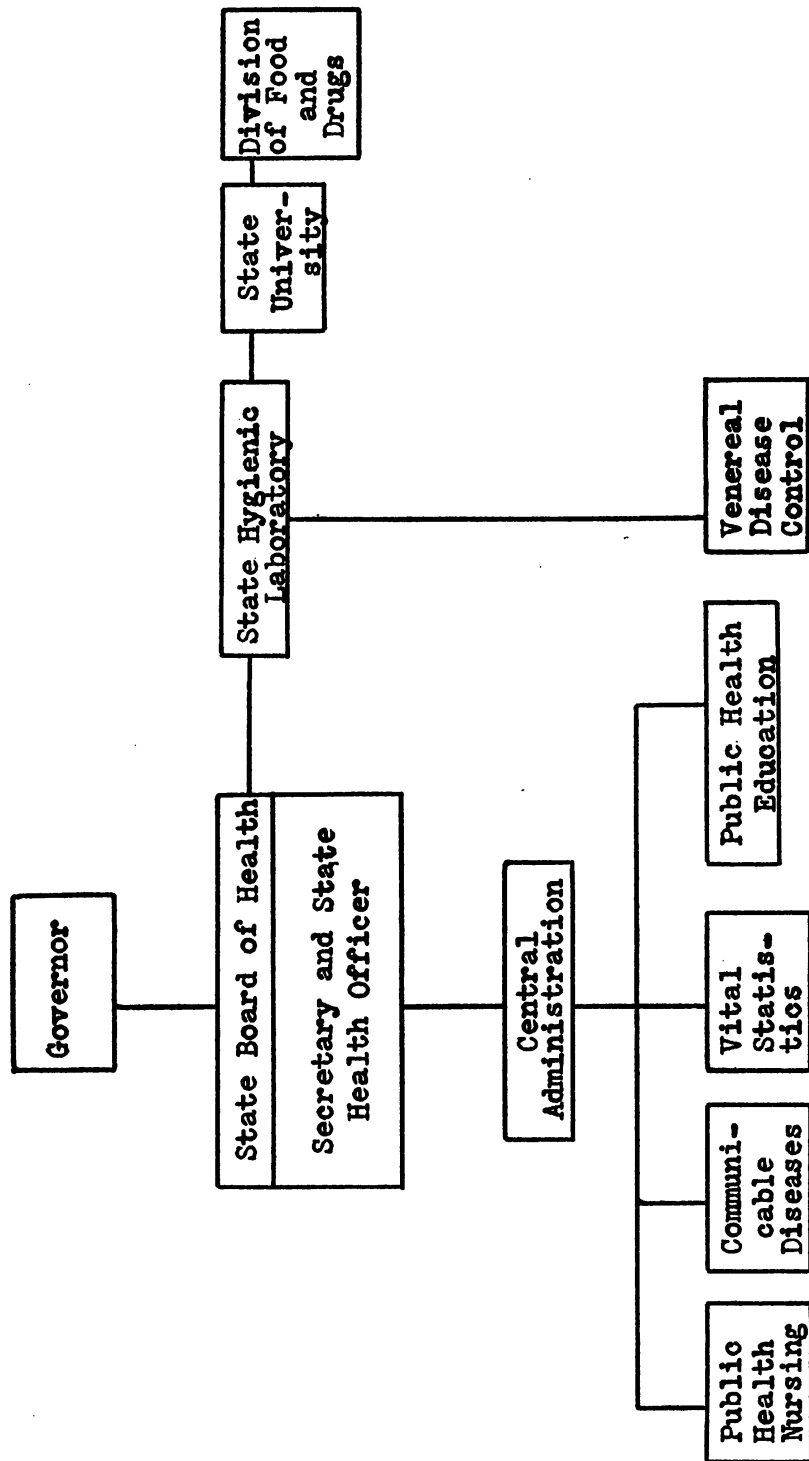


FIGURE 46

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial power. It is authorized to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. The control of milk supplies and food adulteration are functions of the food and drugs department of the State university. The enforcement of the medical practice law is a duty of the State board of medical examiners. The department of health has no jurisdiction over midwifery.

APPROPRIATIONS

No definite appropriation is made for the State department of health or for the health work of the university. The probable expenditure is based on a millage tax and the return depends on the assessed valuation of the State and the rate of taxation as determined by the State tax commission. This tax varies from year to year and serves for five service divisions of the State. It is apportioned to the several services by the president and the board of regents. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 170.—*Divisions of the State department of health in 1930*¹

NEVADA

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$5,100	2	\$2,500	\$1,500	\$4,000
State hygienic laboratory.....	\$10,910	3			

¹ Total appropriation, \$5,100; total appropriation exclusive of tuberculosis sanatoria funds, \$5,100; State legislative appropriation, \$5,100.

² The hygienic laboratory and the division of food and drugs are maintained by the State university. The appropriation for their maintenance is made to university and not to the State board of health.

CENTRAL ADMINISTRATION

Personnel.—The State health officer, who is assisted by one clerk, has charge of communicable diseases and is the State registrar of vital statistics.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel of the department.

Disbursement of funds.—Funds are disbursed on vouchers approved by the State health officer and State board of examiners and paid by the State treasurer.

Purchase.—Supplies are purchased upon the order of the State health officer and the State board of health.

Supervision.—The State department of health acts in an advisory capacity to the local boards of health.

Epidemiology.—The control of communicable diseases is a function of the State health officer. All epidemiological investigations are made by the director of the State hygienic laboratory.

Reporting of diseases.—The local health officers report cases of communicable diseases each month to the State department of health.

Quarantine.—Quarantine measures are under the control of the county health officers.

Smallpox vaccination.—Smallpox vaccination for school children is not compulsory in this State.

Emergency fund.—There is an emergency fund of \$8,000 which can be used at the discretion of the State health officer in case of an epidemic.

Tuberculosis.—The State department of health does not engage in any activity for the control of tuberculosis and there are no State tuberculosis sanatoria or clinics.

Sanitary engineering.—There is no division of sanitary engineering and no rules or regulations have been passed governing such matters.

Publicity.—The State health officer is in charge of the publicity of the State department of health.

Press service.—The State department of health enjoys the cooperation of the State press.

Bulletins.—Bulletins are published as the occasion arises, and pamphlets are distributed from time to time.

Equipment.—The State board of health does not have any educational equipment, such as motion-picture films, exhibits, etc.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

Public-health nursing.—The State health officer supervises the nursing services carried on by the health department. One public-health nurse covers the entire State.

Eligibility requirements.—A public-health nurse must be a graduate nurse versed in public-health work.

Vital statistics.—There is no separate division of vital statistics. The State health officer and one clerk attend to this activity.

Registration district.—The counties and the incorporated towns are the primary registration districts.

Local registrars.—The local registrars are chosen by the State health officer. They are paid a fee of 50 cents by the State board of health for each certificate issued.

Registration area.—Nevada was admitted to the registration area for both births and deaths in 1929.

Reporting of deaths.—The percentage of deaths occurring in the State was not recorded in 1929. Deaths must be reported to the local registrar before burial and to the State registrar by the 5th of the month.

Legal standards.—The standard certificate, the international list of the causes of death, and the model law are used in this State.

Reporting of births.—In 1929, 95 per cent of the births occurring in the State were reported; of these, 99 per cent were reported by physicians and 1 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar before the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State board of health supplies the blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State embalmers board; midwives are not licensed.

STATE HYGIENIC LABORATORY

The State hygienic laboratory maintained by the university is located at Reno, and the appropriation for its maintenance is made to the university and not to the State board of health.

Personnel.—The personnel of the State hygienic laboratory in 1930 consisted of a director and two assistants.

Branch and private laboratories.—No branch laboratories have been established and the State department of health has no supervision over the private laboratories in the State.

Special laboratories.—The State department of health does not maintain any special laboratories.

Activities.—The laboratory carries on private medical laboratory work, including the examination of pathological specimens. The number of examinations made during 1929 was not recorded.

Fees.—Fees are charged for examination of pathological specimens, clinical examinations of blood, urine, etc. The fees are allocated to the laboratory.

Biological products.—Biological products are not manufactured and diphtheria antitoxin is the only biological product distributed by the State department of health. During 1929, 17 stations for the free distribution of antitoxin were maintained.

Venereal-disease control.—The director of the hygienic laboratory also has charge of work done in the control of venereal diseases. There is no appropriation for this division and very little other than educational work is done. No clinics are conducted by the State department of health and no treatments were administered during 1929.

DIVISION OF CHILD HYGIENE

Organization.—The division of child hygiene which was nominally a part of the health department has been discontinued.

Prenatal clinics.—There are no prenatal clinics.

Midwifery.—No instruction is given to midwives.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported to the local health officer. The instillation of some germicide of proven efficiency in the eyes of the newborn is required.

Lying-in hospitals and orphanages.—There are no lying-in hospitals and orphanages are not licensed.

Preschool and school hygiene.—No preschool or school hygiene activities are carried on by the State department of health.

DIVISION OF FOOD AND DRUGS

The division of food and drugs is maintained by the State university and the appropriation for its maintenance is made directly to the university by the State legislature.

TABLE 171.—Total budget, State legislative budget for health work, and budgets by divisions, by years

NEVADA

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total and State legislative budget...	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$4, 250
Central administration.....	4, 250	4, 250	4, 250	4, 250	4, 250	4, 250	4, 250	4, 250
State hygienic laboratory ¹	5, 557	5, 557	5, 755	5, 755	6, 960	6, 960	5, 450	5, 450
Division of child hygiene ²								\$ 16, 044

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total and State legislative bud- get.....	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$4, 250	\$5, 100	\$5, 100
Central administration.....	4, 250	4, 250	4, 250	4, 250	4, 250	4, 250	5, 100	5, 100
State hygienic laboratory ¹	9, 250	9, 250	10, 910	10, 910	10, 910	10, 910	10, 910	10, 910
Division of child hygiene ²	\$ 16, 044	\$ 16, 044	\$ 16, 044	\$ 16, 044	\$ 16, 044	\$ 16, 044	(³)	(⁴)

¹ State legislative appropriation for State hygienic laboratory is made direct to the State university.

² Appropriations for the division of child hygiene are sent to this division and are not handled by the State board of health.

³ Sheppard-Towner funds included.

⁴ Discontinued in 1929.

TABLE 172.—Total appropriations for State department of health, by years

NEVADA

Year	Total appropriation	Appropriation from State legislature	Year	Total appropriation	Appropriation from State legislature
1915.....	\$4, 250	\$4, 250	1923.....	\$4, 250	\$4, 250
1916.....	4, 250	4, 250	1924.....	4, 250	4, 250
1917.....	4, 250	4, 250	1925.....	4, 250	4, 250
1918.....	4, 250	4, 250	1926.....	4, 250	4, 250
1919.....	4, 250	4, 250	1927.....	4, 250	4, 250
1920.....	4, 250	4, 250	1928.....	4, 250	4, 250
1921.....	4, 250	4, 250	1929.....	5, 100	5, 100
1922.....	4, 250	4, 250	1930.....	5, 100	5, 100

NEW HAMPSHIRE

STATE BOARD OF HEALTH

Organization.—There are six members of the State board of health. The governor and attorney general are members ex officio, and in addition there are three physicians and one civil engineer appointed by the governor and his council.

Term of office and compensation.—The members serve for a period of four years; the terms of two members expire every two years. They do not receive any salary, but the traveling expenses which they incur while carrying out their duties are paid.

Meetings.—Meetings of the board are held every other month.

EXECUTIVE OFFICER

Legal qualifications.—The secretary of the board, who must be a physician, is appointed by the State board of health from outside their number and is not a member of the board.

Term of office and compensation.—The executive officer serves for an unlimited term of office. He receives an annual salary of \$4,000 and traveling expenses.

Duties.—The secretary is also the registrar of vital statistics, and during 1930 acted as pathologist in the laboratory of hygiene.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has a limited amount of judicial power. It is authorized to make and enforce rules and regulations with regard to sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, quarantine, and midwifery. The enforcement of the medical practice act is not a function of the State department of health.

APPROPRIATIONS

Appropriations for the State department of health are made by the State legislature as part of a general "budget bill" applying to all departments. The legislature meets in January of odd years. The fiscal year of the health department ends on June 30.

New Hampshire - Organization of the State Department of Health in 1930

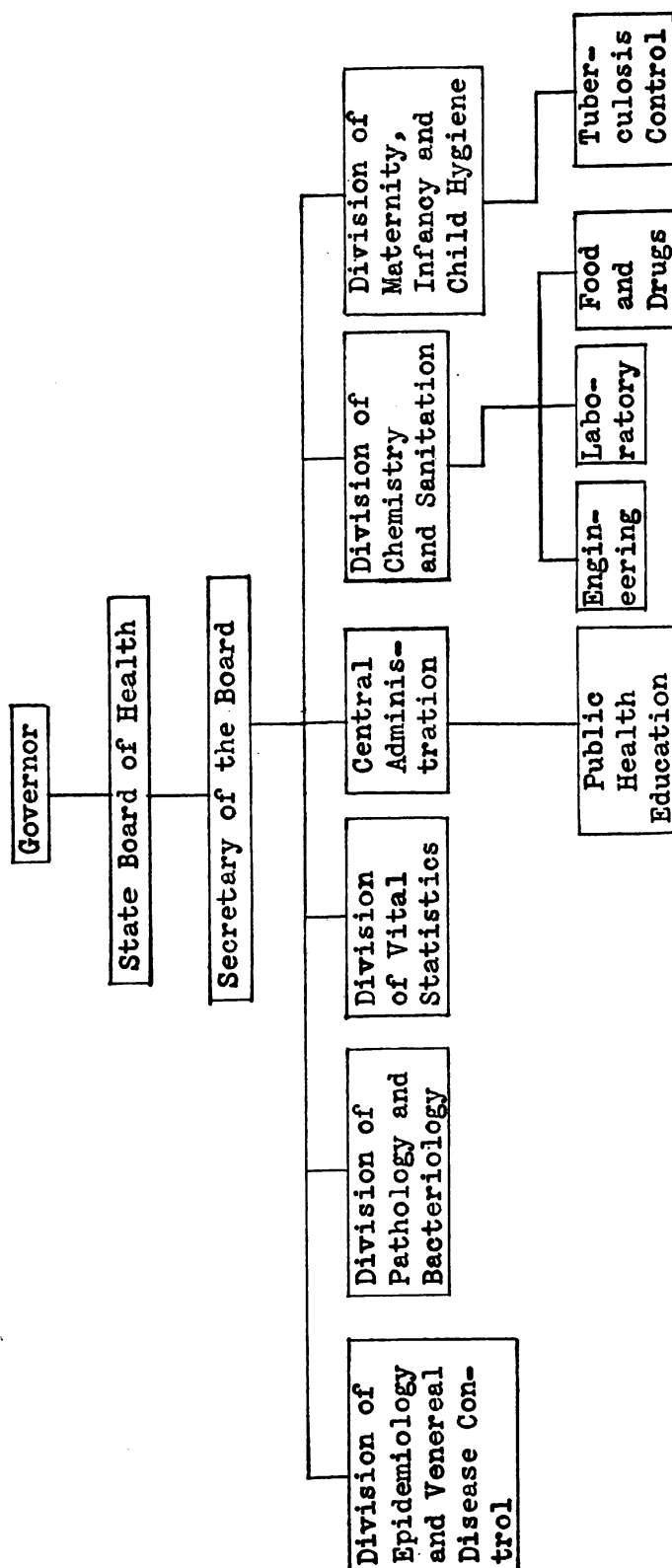


FIGURE 47

TABLE 173.—Divisions of the State department of health in 1930 ¹

NEW HAMPSHIRE

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration and division of vital statistics	\$3,750	4	\$4,000	\$4,850	\$8,850
Division of epidemiology and venereal-disease control	6,000	1	2,400		2,400
Division of chemistry and sanitation	(²)	2	2,300	2,000	4,300
Division of pathology and bacteriology	17,300	³ 5	4,000	4,600	8,600
Division of maternity, infancy, and child hygiene	21,000	3	2,300	2,175	4,475
Tuberculosis dispensaries	3,000				

¹ Total appropriation, \$50,150; total appropriation exclusive of tuberculosis sanatoria funds, \$50,150; State legislative appropriation, \$50,150.

² Included under division of pathology and bacteriology.

³ State health officer included.

CENTRAL ADMINISTRATION

Personnel.—In 1930 the personnel of the central office consisted of the secretary of the board and one clerk.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel of the department.

Disbursement of funds.—Funds are disbursed on requisitions which have been approved by the governor and his council. The State treasurer is the disbursing agent.

Purchases.—Supplies are bought through the State purchasing agent.

Supervision.—The legislature of 1915 enacted a law whereby the board of selectmen of a town and the health officer nominated by them and appointed by the State board of health constituted the board of health of the town. This law does not apply to cities of the State having an organized health department. The State board of health acts in an advisory capacity toward such local boards of health.

Publicity.—The entire staff of the health department assists in its publicity work.

Press service.—The newspapers of the State cooperate with the health department.

Bulletin.—A bulletin is published monthly, and special pamphlets are issued from time to time.

Equipment.—The State department of health owns a stereopticon, a set of slides on practically every health subject, and 12 motion-picture films.

Cooperation.—The closest cooperation exists between the State departments of education and health.

DIVISION OF EPIDEMIOLOGY AND VENEREAL-DISEASE CONTROL

Personnel.—The staff of the division of epidemiology and venereal-disease control consisted in 1930 of a director, who was unassisted.

Reporting of diseases.—The local health officers of the towns and cities report cases of communicable diseases weekly to the State department of health. Physicians report cases of venereal diseases and tuberculosis directly to the health department.

Quarantine.—Quarantine measures are delegated to the control of the local boards of health, subject to the supervision of the State department of health.

Smallpox vaccination.—Smallpox vaccination is compulsory for school attendance.

Emergency fund.—No emergency fund is available for use in case of an epidemic or a severe outbreak of disease.

Venereal-disease control.—In 1920 the State began to cooperate with the Federal service in carrying on work for the control of venereal disease. The State department of health carries on a program, including educational activities, law enforcement, repression of prostitution, and treatment of diseased persons.

Clinics.—Four venereal-disease clinics are supervised by the State department of health.

Treatments.—During 1929, 6,586 treatments were administered, of which 2,100 were salvarsan. Treatments are furnished free of charge if the patient is unable to pay.

DIVISION OF VITAL STATISTICS

Personnel.—The secretary of the board is State registrar of vital statistics. In 1930 two clerks were included in the personnel of this division.

Registration districts.—The towns and cities constitute the primary registration districts in New Hampshire.

Local registrars.—The local registrars are chosen by the towns and cities. They are paid a fee of 15 cents by the local government for each record filed.

Registration area.—New Hampshire was admitted to the registration area for deaths in 1890 and was one of the original States in the registration area for births when it was formed in 1915. This division has now filed in its archives copies of birth, marriage, and death records from the earliest settlement of the State.

Reporting of deaths.—All death certificates must be signed by a physician. Deaths must be reported to the local registrar before burial and to the State registrar between the 6th and 12th of the month. In 1929, 99 per cent of all the deaths occurring in the State were reported.

Legal standards.—The model law and the international list of the causes of death are used in this State. The standard certificate is not used.

Reporting of births.—Births must be reported to the local registrar within six days and to the State registrar between the 6th and 12th of the month. In 1929, 99 per cent of the total births were reported; of these, 99 per cent were reported by physicians and 1 per cent by midwives.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording births and deaths and the local government provides the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is investigated by the State medical examiners and by the State pathologist.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical registration, midwives by the local boards of health, and undertakers by the State embalmers' examiners.

DIVISION OF PATHOLOGY AND BACTERIOLOGY

Personnel.—As has already been stated, the State health officer acts as pathologist. In 1930 he was assisted by a chemist who was in charge of the division, two assistant chemists, and a clerk. The State laboratory of hygiene is divided into two sections: (1) Diagnostic and pathological laboratories, and (2) the laboratory for the examination and supervision of water, sewage, foods, drugs, etc., which is maintained by the division of chemistry and sanitation.

Branch laboratories.—One branch laboratory located at Hanover (Dartmouth College) is financed in part by State appropriations.

Private laboratories.—The State department of health does not have any supervision over the private laboratories in the State.

Special laboratories.—A chemical laboratory is maintained by the division of chemistry and sanitation.

Activities.—During 1929, 9,068 examinations were recorded. The principal diagnostic examinations were Wassermann tests, sputa examinations, and diphtheria examinations. A detailed summary of the diagnostic activities of the hygienic laboratory is given on pages 98 to 100.

Fees.—No fee is charged for work coming within official duties. All pathological tissues and specimens are examined free of charge.

Biological products.—Biological products are not prepared but are distributed by the division of pathology and bacteriology. Diphtheria antitoxin and toxin-antitoxin are distributed free of charge. The amounts issued during 1929 are not given.

Shellfish sanitation.—The prevention of the pollution of shellfish is supervised by the State department of health and is a function of the division of pathology and bacteriology.

DIVISION OF CHEMISTRY AND SANITATION

Personnel.—The work on water supplies and general sanitation carried out by the division of chemistry and sanitation is conducted in conjunction with the inspection and examination of foods and drugs under the food and drugs laws; all the work is in the charge of the chief of this division. In addition there was in 1930 a sanitary inspector.

Sanitary engineering.—The division of chemistry and sanitation is divided into three sections: Sanitary engineering, surveys, and inspections. The division cooperates with the Federal service in the certification of water supplies for common carriers.

Public water supplies.—The health department has general supervision of all public water supplies throughout the State.

Bottled waters.—The State department of health has general charge of the special licensing and registration law covering the bottling and sale of drinking waters.

Inspection.—Public water supplies and water-purification plants are inspected a number of times annually. Reports of the use of chlorinators are made weekly by the operators to the chief of the division.

Ice cutting.—The State department of health is empowered by law to prohibit the cutting of ice from polluted sources.

Sewage disposal.—The State department of health has no control over sewage-disposal plants.

Camps.—The inspection of summer camps and motor tourist camps is a large part of the work of the division during the summer.

Swimming pools.—Swimming pools are inspected by this division, and advice is given with regard to them.

Roadside water supplies.—The supervision of roadside water supplies comes under general legislation concerning water supplies.

Engineering laboratory.—The second section of the division of chemistry and sanitation is concerned with laboratory examinations in connection with the control of water supplies, sewage disposal, etc. Of late years the amount of laboratory work of this character has considerably increased. No fee is attached to this service.

Foods and drugs.—The third section of this division is responsible for inspection and examination of foods and drugs.

Food handlers.—The employment of diseased persons in positions involving the handling of food is prohibited by the sanitary food law, and food handlers are examined upon complaint.

Food inspection.—Inspections of food are made by agents of the department, with the cooperation of the local health departments.

Hotels.—Permits are not required to run places where food is handled.

Abattoirs and cold storage.—Slaughterhouses are inspected and cold storage laws are enforced by the division of chemistry and sanitation.

Milk laws.—The enforcement of the milk laws is intrusted to the State department of health. The pasteurization of milk and the inspection of dairies comes under the jurisdiction of the division of chemistry and sanitation.

Tuberculin testing.—The tuberculin testing of cattle is required by the department of agriculture.

Analyses.—Examination of milk supplies is made by the State laboratory for towns and cities not having laboratory facilities for testing milk.

Food and drugs laboratory.—Other routine laboratory examinations are made by the division of chemistry and sanitation for evidence of adulteration or misbranding of foods and drugs and also with regard to various miscellaneous matters. During the summer of 1923 a beginning was made in the inspection of roadside refreshment stands. The chief of the division also serves as State chemist for toxicological and general chemico-legal work, including the analysis of liquors. No fees are received for this service. Analyses are made in connection with the purchase of supplies by the State purchasing agent.

DIVISION OF MATERNITY, INFANCY, AND CHILD HYGIENE

Personnel.—The State supervisory nurse was made director of the division of maternity, infancy, and child hygiene in 1925. In addition in 1930 there were two clerks and six nurses.

Maternity and infancy.—The division of maternity, infancy, and child hygiene provides a staff of nurses highly trained in maternity and infancy work; these nurses are located in counties throughout the State. Home visiting is one of the important features of the program. In the sections where the nurses are employed, the home of every newborn baby is visited as soon as possible and the mother is given advice and help.

Prenatal hygiene.—Through an understanding with the physicians, the nurses are allowed to give prenatal care. Blood pressures are taken, urinalyses made, and advice given regarding diet, rest, exercise, etc. An obstetrical package is given free of charge to any community. No prenatal clinics are held, however.

Mothers' classes.—Mothers' classes are a feature of the work, and from three to nine lessons are given to each class, with demonstrations by the nurse.

Literature.—Pamphlets pertaining to infant, child, and prenatal care are sent from the State department of health from the time the child is born until it reaches the age of 1 year, when the final booklet which carries the child through the preschool period is sent.

Midwifery.—There are only four active midwives in the State. Special rules and regulations for midwives have been laid down by the State board of health, and these practitioners are licensed by local authorities.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported to the local board of health within 6 hours by a midwife and 24 hours by a physician. The attending physician, midwife, or person in charge at confinement must instill a drop of a 1 per cent solution of silver nitrate or some equally efficient solution into the eyes of the new born.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed by the State department of public welfare.

Child-health conferences.—Child-health conferences have been held in nearly every town in the State, and intensive educational campaigns have been carried on in cooperation with the boards of education. In many of the towns practically every child has been examined once a year since the work started. Whenever defects are found, every endeavor is made to see that they are corrected before the child enters school. During 1929, 98 preschool clinics were conducted by physicians under the division of maternity and infancy, and 2,968 children were examined.

School hygiene.—School hygiene is carried on by the State department of education.

Public-health nursing.—The State supervisory nurse is in charge of the division of maternity, infancy, and child hygiene. The nursing service of the health department gives advisory service to all nurses in the State.

Eligibility requirements.—A public-health nurse must be a registered nurse and a graduate from an accredited hospital. In so far as possible New Hampshire endeavors to secure nurses who have had public-health training and experience.

Number of nurses.—In 1929 there were about 149 public-health nurses engaged throughout the State in general public-health work. There are nurses devoting their entire time to maternity, infancy, and child-hygiene work under the direction of, and paid by local boards of health and district nursing associations. The average salary of these nurses is about \$1,700 a year. The State board of education employs a nurse whose duty it is to standardize school nursing.

Tuberculosis control work.—The State supervising nurse is in charge of the tuberculosis control carried on by the State department of health. The work is done on a county basis. There are 10 counties in the State and 9 nurses, whose entire time is given over to case finding, clinics, and educational work in the homes. The New Hampshire Tuberculosis Association, a private agency, finances practically all the tuberculosis work in the State, with the exception

of one board of health in a city that employs a full-time nurse for this type of public health work. The State department of health cooperates by allowing its supervising nurse to give whatever time is necessary to tuberculosis work.

Sanatoria.—There is one State sanatorium with a capacity of 108 beds which is under the management of a board of trustees appointed by the governor and his council. In 1930, \$20,000 was appropriated to maintain this sanatorium. In addition, there is one private sanatorium with a capacity of 90 beds.

Clinics.—There is not a town or a section of the State that does not have the services of a nurse specially instructed in tuberculosis work, as well as the advantage of the occasional tuberculosis clinic. In 1929 there were 78 clinic centers in the State where any individual might go for a chest examination by a chest specialist. These clinics are conducted by the New Hampshire Tuberculosis Association.

Underweight children.—A great deal of attention has been paid to the underweight child. In many towns each year the school nurse arranges through the State department of health and the New Hampshire Tuberculosis Association for a clinic for underweight children. The local board of health and board of education cooperate in this work. When a child is known to have tuberculosis in any form, this child becomes the charge of the tuberculosis nurse in that community. The underweights are the problem of the local school nurse, whose duty it is to instruct the parents in regard to diet, rest, etc.

TABLE 174.—Total budget, State legislative budget for health work, and budgets by divisions, by years

NEW HAMPSHIRE

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$12,500	\$11,250	\$12,100	\$15,050	\$16,050	¹ \$22,813	¹ \$20,161	¹ \$27,378
State legislative budget.....	12,500	11,250	12,100	15,050	16,050	17,832	18,832	26,150
Central administration and division of vital statistics.....	2,800	1,600	2,800	1,800	3,000	2,300	4,200	2,800
Division of pathology and bacteriology ³	6,800	6,800	9,300	9,300	12,100	12,100	15,500	15,500
Division of epidemiology and venereal-disease control.....						¹ 9,663	¹ 6,011	¹ 7,228
Division of maternity, infancy, and child hygiene.....								¹ 5,000

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	¹ \$33,293	¹ \$48,546	¹ \$49,731	² \$49,127	² \$50,627	² \$48,427	² \$49,927	\$50,150
State legislative budget.....	27,350	35,138	36,638	36,138	37,638	35,438	36,938	50,150
Central administration and division of vital statistics.....	4,800	2,800	5,300	3,050	5,600	3,550	6,050	3,750
Division of pathology and bacteriology ³	16,800	16,800	17,150	17,150	17,150	16,200	16,200	17,300
Division of epidemiology and venereal-disease control.....	¹ 6,943	¹ 6,419	¹ 6,105	6,000	6,000	6,000	6,000	6,000
Division of maternity, infancy, and child hygiene.....	² 5,000	² 20,977	² 20,977	² 20,976	² 20,976	² 20,976	² 20,976	21,000

¹ Federal venereal-disease funds included. (See Table 175.)

² U. S. Children's Bureau funds included. (See Table 175.)

³ Includes division of chemistry and sanitation.

TABLE 175.—Total appropriations for State department of health, by years

NEW HAMPSHIRE

Year	Total appropriation	Source of funds and amounts			Year	Total appropriation	Source of funds and amounts		
		State legislature	United States Public Health Service for venereal disease	United States Children's Bureau			State legislature	United States Public Health Service for venereal disease	United States Children's Bureau
1915-----	\$12,500	\$12,500	-----	-----	1923-----	\$33,293	\$27,350	\$943	\$5,000
1916-----	11,250	11,250	-----	-----	1924-----	48,546	35,138	419	12,988
1917-----	12,100	12,100	-----	-----	1925-----	49,731	36,638	105	12,988
1918-----	15,050	15,050	-----	-----	1926-----	49,127	36,138	-----	12,989
1919-----	16,050	16,050	-----	-----	1927-----	50,627	37,638	-----	12,989
1920-----	22,813	17,832	\$4,982	-----	1928-----	48,427	35,438	-----	12,989
1921-----	20,161	18,832	1,330	-----	1929-----	49,927	36,938	-----	12,989
1922-----	27,378	26,150	1,228	-----	1930-----	50,150	50,150	-----	-----

NEW JERSEY

STATE DEPARTMENT OF HEALTH

Organization.—The department of health, as now constituted, was established by an act of the legislature approved April 14, 1915. The department is governed by a board of 11 members appointed by the governor. The law requires that not more than six members of the board shall be members of the same political party, and all members must be residents of the State. At least three members of the board must be physicians, one a veterinarian, one a dentist, two sanitary engineers, and two women.

Term of office and compensation.—The members are appointed to serve for four years, the terms of two members expiring each year. They receive no compensation for their services, but necessary expenses are paid.

Meetings.—The board meets on the 1st Tuesday in each month except during the months of July and August, and at such other times and places within the State as in its judgment may be necessary.

EXECUTIVE OFFICER

Legal qualifications.—The board is required to select the director of health from outside its membership. The director must be a resident of the State, must be skilled in sanitary science, and must have had actual experience in an administrative or executive capacity in some well-organized department of public health. He is not a member of the board.

Term of office and compensation.—The director of health serves for a period of four years and receives \$6,500 a year and traveling expenses.

New Jersey - Organization of the State Department of Health in 1930

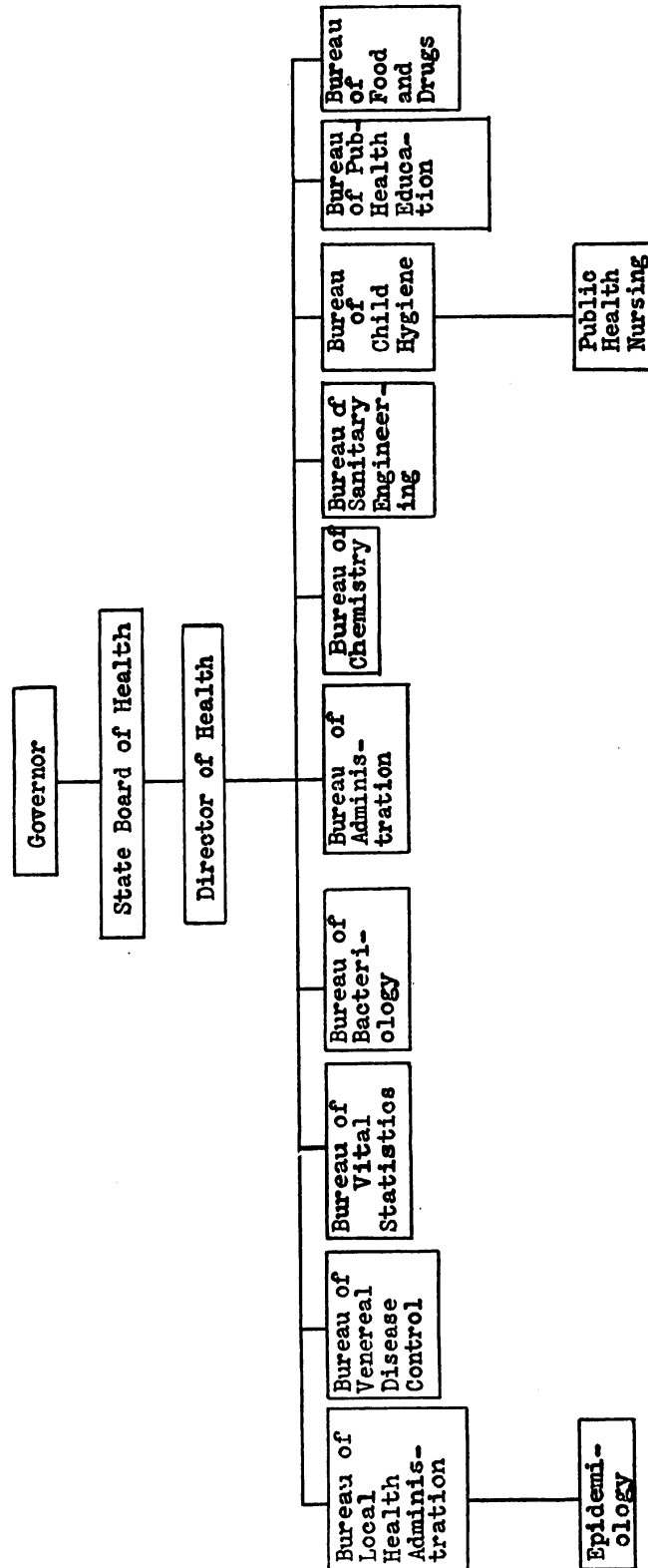


FIGURE 48

POWERS OF THE STATE DEPARTMENT OF HEALTH

Powers and duties.—The board is an executive body; its powers and duties are specifically set forth in the statute laws. In addition to the enforcement of statute laws, the board is required to enact a State sanitary code which "shall contain such rules and regulations, the observance of which, in its opinion, will promote health and prevent disease." The code supersedes all local ordinances, rules, and regulations, and must be observed throughout the State and enforced by all local health officials. The State department of health has quasi judicial power and legislative and executive authority in regard to sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, and quarantine. The control of midwifery and the enforcement of the medical practice law are not functions of the State department of health. The director of health acts as the executive officer of the department when the board is not in session. He is held personally responsible for the enforcement of the provisions of certain statute laws. The board appoints all employees of the department and fixes their salaries, subject to civil-service laws.

APPROPRIATIONS

The State legislature makes an annual appropriation based on the budget request of the State department of health. The appropriation is not allotted in budgets to the various bureaus except to those of child hygiene and of venereal-disease control. The State legislature meets in January of even years. The fiscal year of the health department ends June 30.

TABLE 176.—*Bureaus of the State department of health in 1930*¹

NEW JERSEY

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	(2)	9	\$6,500	\$21,514	\$28,014
Bureau of local health administration.....	(2)	11	4,500	22,259	26,759
Bureau of venereal disease control.....	\$28,935	8	3,300	11,456	15,056
Bureau of vital statistics.....	(2)	16	4,500	21,222	25,772
Bureau of bacteriology.....	(2)	16	4,800	26,888	31,688
Bureau of chemistry.....	(2)	7	4,500	13,062	17,562
Bureau of sanitary engineering.....	(2)	15	5,000	33,069	38,069
Bureau of child hygiene.....	123,023	62	4,500	84,667	89,167
Bureau of public health education.....	(2)	1	4,500	-----	4,500
Bureau of food and drugs.....	(2)	11	4,500	25,940	30,440

¹ Total appropriation, \$416,978; total appropriation exclusive of tuberculosis sanatoria funds, \$416,978; State legislative appropriation, \$416,978.

² Budgets not given by bureaus except for venereal-disease control and child hygiene.

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the bureau of administration in 1930 consisted of the director of health, the assistant director, an auditor, five clerks, and an office boy. This bureau has general supervision, subject to the superior authority of the board, of the overhead activities of the department as a whole, including accounting, general record keeping, etc.

Civil service.—The employees of the State department of health are civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—All bills must be approved by the State department of health and payments are made by the State comptroller.

Purchases.—Supplies are purchased on requisitions made by the State department of health to the State purchasing agent.

BUREAU OF LOCAL HEALTH ADMINISTRATION

The bureau of local health administration, corresponding to the bureau of communicable diseases in most States, was reorganized in 1915.

Personnel.—The staff of the bureau of local health administration in 1930 consisted of a chief, two assistant epidemiologists, two district health officers, and seven clerks and stenographers.

Activities.—This bureau cooperates with local health officials in the enforcement of the public-health laws and regulations of the State sanitary code, and in the investigation of epidemics and the unusual prevalence of communicable diseases, except venereal diseases. It conducts sanitary surveys, investigates complaints of nuisances, and receives and studies reports of communicable diseases. The personnel of this bureau aids in establishing and conducting clinics for administering prophylactic treatments, provides consultation and advice in preventing the spread of communicable diseases, and directs the work in the two health districts now established.

Reporting of diseases.—Local health officers must report cases of communicable diseases to the State department of health daily.

Quarantine.—Quarantine measures are enforced by the local boards of health.

Smallpox vaccination.—Smallpox vaccination is not compulsory, but local boards of education may exclude unvaccinated children from attendance at public schools.

Emergency fund.—There is a general emergency fund which may be used at the discretion of the governor.

Tuberculosis control.—The bureau of tuberculosis control was discontinued in 1926, and at present no activities in this field are carried on by the department of health.

Clinics.—During 1929, 513 tuberculosis clinics were conducted at 57 stations by the State sanatorium; 7,034 persons received treatment. In addition, 4,193 clinics were conducted at 49 stations by local health organizations.

Sanatoria.—There is one State tuberculosis sanatorium with a capacity of 377 beds. It is maintained by the State department of institutions and agencies. The amount appropriated for this sanatorium in 1930 was \$466,804. There are 10 county sanatoria (1,754 beds), 1 municipal sanatorium (90 beds), and 7 semiprivate or private sanatoria (542 beds) in the State.

BUREAU OF VENEREAL-DISEASE CONTROL

Personnel.—The chief of the bureau of venereal-disease control in 1930 was assisted by the part-time services of a consultant, and by a supervisor, four clerks, and a lecturer.

Clinics.—The department of health does not conduct any venereal-disease clinics, but in 1929 it cooperated in the maintenance of 28 local clinics which were partly subsidized by the health department.

Treatments.—During 1929, 71,262 treatments, 21,906 of which were salvarsan, were administered through these cooperative clinics. Treatments are given free to indigent persons.

BUREAU OF VITAL STATISTICS

Personnel.—The State registrar of vital statistics was assisted in 1930 by an assistant chief, 14 clerks and clerk-stenographers.

Registration.—Each city, borough, town, and township is a primary registration unit.

Local registrars.—The local registrars are appointed by the local boards of health subject to the approval of the State department of health. Some of the registrars receive a salary, but the majority are paid from local funds a fee of 25 cents for each record issued.

Registration area.—New Jersey was one of the original States in the registration area for deaths and was admitted to the registration area for births in 1921.

Reporting of deaths.—In 1929 all deaths occurring in the State were reported; 95 per cent were reported by physicians and 5 per cent by undertakers. Deaths must be reported to the local registrar before burial and to the State registrar by the 10th of each month.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in this State.

Reporting of births.—In 1929 approximately 98 per cent of the births occurring in the State were reported; 66 per cent of these were

reported by physicians and 34 per cent by midwives. Births must be reported to the local registrars within 5 days and to the State registrar by the 10th of each month.

Stillbirths.—Stillbirths are recorded as stillbirths and a certificate of stillbirth is filed with the local registrar in the form and manner of a certificate of birth.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful or suspicious means, the matter is referred to the coroner or county physician.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—Physicians and midwives are licensed by the State board of medical examiners. Undertakers are licensed by the State board of undertakers and embalmers.

BUREAU OF BACTERIOLOGY

Personnel.—The personnel of the bureau of bacteriology in 1930 consisted of a chief, two bacteriologists, four technicians, five laboratory assistants, and four clerks and stenographers.

Branch laboratories.—There are no branch laboratories.

Private laboratories.—Private laboratories are under the supervision of the State department of health. The director of health may inspect every bacteriological or chemical laboratory doing work for local health authorities of the State and issue a certificate of approval. Laboratories must be equipped with standard appliances and apparatus for the work. Persons in charge of laboratories must be fully qualified by training and experience in bacteriological diagnosis. Records must be kept and reports on results of examinations must be made to the health officer in the municipality from which such specimens are sent. All laboratory records are open to inspection by representatives of the State director of health. Certain methods for examination of specimens from various communicable diseases are required to be followed. Approval for these laboratories meeting all requirements is issued for a period of one year, subject to revocation.

Special laboratories.—A laboratory boat for use in supervising the oyster industry is maintained by the bureau of chemistry. No other special laboratories are maintained by the State health department.

Activities.—During 1929, 77,840 specimens were examined by the bureau of bacteriology. In addition, 3,466 samples of shellfish and water were examined on the laboratory boat. The examinations made by the bureau included examinations of blood specimens for

Wassermann tests, water and milk analyses, and examinations of tuberculosis sputa and diphtheria cultures. A summary of the specimens received is given on pages 98 to 100.

Fees.—Specimens submitted by physicians and local health officials for diagnostic purposes are examined free of charge. Containers for the collection and transportation of such specimens are also furnished free through local health officials and at other depositories conveniently located throughout the State. Fees are charged for the examination of private water supplies.

Biological products.—Biological products are not manufactured, but are distributed at cost by the bureau of bacteriology to physicians, institutions, and health officers. Silver-nitrate ampules are issued free of charge. The amounts distributed in 1929 are recorded on page 102.

BUREAU OF CHEMISTRY

Personnel.—In 1930 the staff of the bureau of chemistry consisted of the chief, four chemists, a clerk-stenographer, and a laboratory-boat captain.

Activities.—Analytical work pertaining to the enforcement of the pure food and drugs laws, including milk analysis, is performed through this bureau.

Shellfish.—This bureau enforces the law concerning the purity of shellfish. For this work a specially equipped laboratory boat is maintained.

BUREAU OF SANITARY ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering in 1930 consisted of the chief, two senior sanitary engineers, two assistant engineers, three chemists, two technicians, a head clerk, and four clerks.

Public water supplies.—This bureau has supervision over all matters relating to sewage and water, including pollution of all waters within the State except in certain areas which have been placed under the supervision of special commissions established by acts of the legislature.

Analysis and inspection.—Public water supplies are analyzed at least four times a year, and water-purification plants are inspected at least once a year.

Bottled waters.—The State department of health controls the sale of waters for potable use.

Ice.—Ice industries are under the jurisdiction of the local boards of health. The bureau of sanitary engineering serves in an advisory capacity.

Sewerage systems.—This bureau makes recommendations to the board of health upon applications for permits to construct and install

sewer systems, sewer extensions, and to construct and operate sewage-treatment plants. The bureau controls the location of industrial plants on potable watersheds and the treatment of trade wastes. The bureau also examines applicants for licenses to operate sewage and water-purification plants.

Camps, swimming pools, and roadside water supplies.—This bureau and the bureau of local health administration serve in an advisory capacity concerning the sanitation of summer and tourist camps, swimming pools, and roadside water supplies.

BUREAU OF CHILD HYGIENE

Personnel.—In 1930 the personnel of the bureau of child hygiene consisted of a part-time consultant acting as director of the bureau, a supervisor, 2 assistant supervisors, 14 district supervisors, and 13 teachers of child hygiene. The personnel of this bureau supervises about 100 nurses in the employ of local boards of health.

Prenatal hygiene.—The State department of health considers prenatal supervision part of its continuous child-hygiene program and has endeavored to develop this phase of the work together with the child-hygiene work. Emphasis is placed upon obtaining at least one medical examination for each expectant mother either from a private physician or at a prenatal clinic. The health department has established two permanent prenatal clinics. Where desirable, hospitals are urged to establish clinics.

Maternity homes and orphanages.—Twenty-eight maternity homes, with a capacity of from 2 to 10 patients each, are licensed by the State department of health. Orphanages are not licensed by the State department of health.

Midwifery.—Supervision and instruction is given to midwives through this bureau.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported. The State department of health is required to distribute 1 per cent silver-nitrate ampules free of cost.

Child-hygiene program.—A large number of rural communities have adopted the child-hygiene program and employ child-hygiene nurses. The continuous child-hygiene program of the State promotes and encourages the grouping of a number of communities to employ a single nurse to carry on the essential educational health activities.

Preschool hygiene.—During 1929, 138 permanent preschool clinics were conducted by the State department of health and 20,941 children were examined. Communities are induced to take over the clinics in connection with their continuous child-hygiene programs, as soon as they have been properly demonstrated. The continuous child-hygiene program in New Jersey has persuaded the educational au-

thorities in a great many communities to ask for thorough physical examinations of children before entering school.

School hygiene.—The school law requires that every board of education employ a competent physician to examine every pupil for physical defects. These medical inspectors are paid by and are under the supervision of the local boards of education.

Public-health nursing.—Public-health nursing is supervised by the bureau of child hygiene. Only preventive work is carried on by the State public-health nurses.

Eligibility requirements.—Public-health nurses must be registered nurses.

Number of nurses.—In 1929 the continuous child-hygiene program was carried on by 133 nurses.

BUREAU OF PUBLIC-HEALTH EDUCATION

Personnel.—In 1930 the chief of the bureau of public-health education received clerical assistance and information from the other bureaus.

Bulletin.—A monthly bulletin is prepared by the bureau of local health administration, and special pamphlets are distributed from time to time.

Press service.—Newspaper articles are issued at irregular intervals.

Equipment.—The State department of health has motion-picture equipment, and special exhibits are prepared from time to time.

Cooperation.—The State departments of education and of health cooperate in preparing bulletins and other educational material.

BUREAU OF FOOD AND DRUGS

Personnel.—In 1930 the staff of the bureau of food and drugs consisted of a chief, an assistant chief, eight food and drug inspectors, and a veterinarian.

Activities.—This bureau conducts all field investigations having to do with the enforcement of the pure food and drugs laws, except those relating to shellfish. These investigations include inspections of milk-pasteurization plants, ice-cream factories, slaughterhouses, cold-storage warehouses, nonalcoholic beverage bottling plants, etc.

Food handlers.—Medical examination of food handlers is not required except in the production of certified milk.

Food inspection.—The inspection of food is made by the State and local departments of health.

Licenses.—Bakeries are licensed by the State department of labor. Creameries, ice-cream factories, slaughterhouses, cold-storage plants, egg-breaking establishments, etc., are licensed by the State department of health and supervised by the bureau of food and drugs.

Abattoirs and cold storage plants.—Slaughterhouses are inspected, and the cold storage laws are enforced by the bureau of food and drugs.

Shellfish sanitation.—The prevention of the pollution of shellfish is a function of the bureau of chemistry.

Milk laws.—The State department of health is intrusted with the enforcement of the milk law. There is a State law which requires the pasteurization of all milk except that from tuberculin-tested cows. These cows must be retested at least once each year. The tuberculin testing of cattle is a function of the bureau of animal industry of the State department of agriculture. In cooperation with the bureau of bacteriology, samples of milk from suspected tubercular cows are examined both microscopically and by animal inoculation. The inspection of dairies is a function of the bureau of food and drugs.

TABLE 177.—Total budgets, State legislative budgets for health work, and budgets by bureaus, by years

NEW JERSEY

Bureau	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$128,000	\$145,000	\$145,000	\$175,240	¹ \$319,676	¹ \$358,906	¹ \$401,380	¹ \$305,490
State legislative budget.....	128,000	145,000	145,000	175,240	301,367	331,320	386,380	278,490
Bureau of venereal-disease control.....					¹ 45,895	¹ 55,172	¹ 50,000	¹ 35,000
Bureau of child hygiene.....				25,000	125,000	150,000	150,000	² 87,000

Bureau	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	¹ \$298,800	¹ \$310,190	¹ \$329,220	¹ \$360,504	² \$365,064	² \$393,474	² \$406,533	\$416,978
State legislative budget.....	260,797	275,921	297,189	329,220	333,780	362,190	375,249	416,978
Bureau of venereal-disease control.....	¹ 31,718	¹ 27,984	¹ 25,746	25,000	28,680	28,240	30,340	28,935
Bureau of child hygiene.....	² 91,285	² 96,285	² 96,285	² 106,284	² 96,284	² 125,284	² 118,163	123,023

¹ U. S. Public Health Service funds included. (See Table 178.)

² U. S. Children's Bureau funds included. (See Table 178.)

TABLE 178.—Total appropriations for State department of health, by years

NEW JERSEY

Year	Total appropriation	Source of funds and amounts			Year	Total appropriation	Source of funds and amounts		
		State legislature	U. S. Public Health Service for venereal diseases	U. S. Children's Bureau			State legislature	U. S. Public Health Service for venereal diseases	U. S. Children's Bureau
1915.....	\$128,000	\$128,000	-----	-----	1923.....	\$298,800	\$260,797	\$6,718	\$31,285
1916.....	145,000	145,000	-----	-----	1924.....	310,190	275,921	2,985	31,285
1917.....	145,000	145,000	-----	-----	1925.....	329,220	297,189	746	31,285
1918.....	175,240	175,240	-----	-----	1926.....	360,504	329,220	-----	31,284
1919.....	319,676	301,367	\$18,809	-----	1927.....	365,064	333,780	-----	31,284
1920.....	358,906	331,320	27,586	-----	1928.....	393,474	362,190	-----	31,284
1921.....	401,380	386,380	15,000	-----	1929.....	406,533	375,249	-----	31,284
1922.....	305,490	278,490	15,000	\$12,000	1930.....	416,978	416,978	-----	-----

NEW MEXICO

BOARD OF PUBLIC WELFARE

Organization.—In 1919, for the first time, the State legislature made an appropriation of \$13,000 for health work. The board of public welfare is composed of five members, appointed by the governor. Not less than two nor more than three members must be women.

Term of office and compensation.—Each member serves for a period of six years, the terms of two groups of two members each expiring at 2-year intervals and the term of the odd member expiring at the end of the next 2-year period. The members of the board of public welfare do not receive any compensation. Traveling expenses are paid when on official duty.

Meetings.—Meetings are held on the second Monday of each month. Additional meetings may be called by the president or by a majority of the members.

Department of public welfare.—In 1921 it became necessary to combine the department of health, including the board of health, with the child welfare service, which had been created in 1919. Consequently, a new department of the State government, the department of public welfare, came into being. In this department two independent bureaus were set up, namely, the bureau of public health and the bureau of child welfare—each retaining all its original rights and duties. The bureau of child welfare is essentially a social service and not a health agency.

EXECUTIVE OFFICER

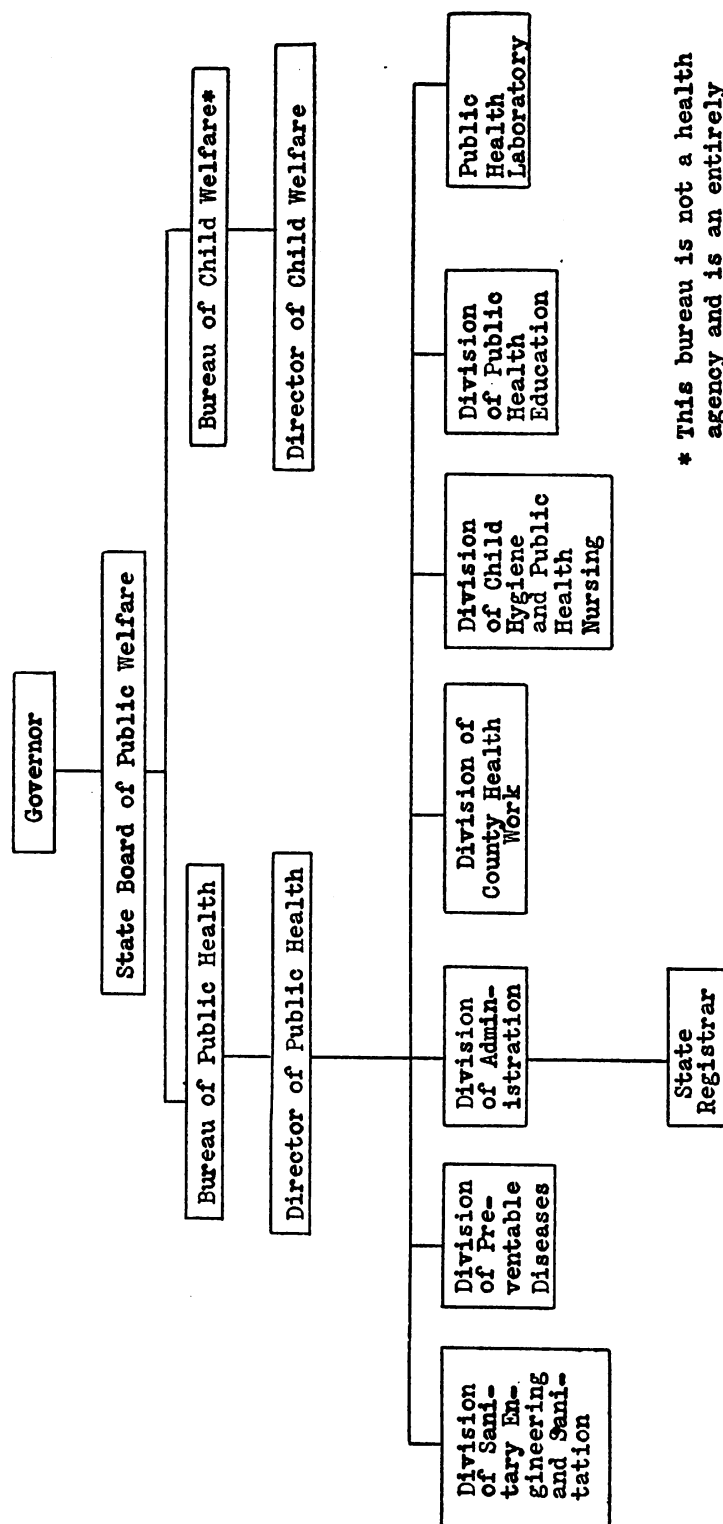
Legal qualifications.—From outside their number, the board of public welfare appoints a director of public health, who has complete control of his office, including the appointing and removal of assistants. He must be experienced and specially trained in sanitary science and public-health administration.

Term of office and compensation.—The director of public health serves for an indefinite period. He receives a yearly salary of \$4,000 and traveling expenses limited to \$5 per day for subsistence within the State.

POWERS OF THE STATE BUREAU OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—Instead of attempting to provide a detailed sanitary code the legislature has conferred upon the State board of public welfare the broadest possible quasi legislative powers. The board is able to promulgate any regulations it deems wise, and such regulation immediately assumes the force of law. The act of the State board of public welfare is sufficient to adopt and put into effect the model law for birth and death regis-

New Mexico - Organization of the State Department of Public Welfare in 1930



* This bureau is not a health agency and is an entirely distinct bureau co-ordinate with the Bureau of Health.

FIGURE 49

tration, for example. The State board of public welfare is authorized and required to hold hearings in appeal concerning the conditions of public health and the activities of the department. In addition the State board of public welfare is empowered to make, promulgate, and enforce such rules and regulations as are necessary concerning sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, quarantine, and midwifery. The enforcement of the medical practice act is administered by the State board of medical examiners.

APPROPRIATIONS

The State legislature makes lump-sum appropriations to the department of public welfare. The board of public welfare distributes the amount appropriated between the child-welfare bureau and the public-health bureau according to their needs and in proportion to the amounts received upon their establishment in 1919. The tendency of late has been to divide the appropriation equally. For the fiscal years 1930 and 1931 the public-health bureau will also receive the proceeds from a special levy of one-twentieth of a mill. It is estimated that this will amount to about \$13,000. The legislature meets in January of odd years. The fiscal year of the bureau of public health ends June 30.

TABLE 179.—*Divisions of the State bureau of public health in 1930*¹

NEW MEXICO

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration ²	\$8,300	³ 4	\$4,000	\$2,850	\$6,850
Division of county health work.....	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
Full-time counties.....	⁶ 75,110	28	3,000-3,600	23,010	50,610
Division of preventable diseases.....	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
State registrar's office.....	8,500	6	2,400	6,900	9,300
Public-health laboratory.....	7,300	4	3,000	2,700	5,700
Division of sanitary engineering and sanitation.....	4,700	³ 2	3,000	(⁴)	3,000
Division of child hygiene and public-health nursing.....	4,600	³ 2	2,520	(⁴)	2,520
Division of health education.....	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)

¹ Total appropriation, \$50,400; total appropriation exclusive of tuberculosis sanatoria, \$50,400; State legislative appropriation, \$34,500.

² Does not include State registrar's office.

³ Officials included whose time is devoted to more than 1 activity.

⁴ Under division of administration.

⁵ Director of public health is chief of this division.

⁶ Not included in total budget.

DIVISION OF ADMINISTRATION

Personnel.—In 1929 the division of vital statistics was abolished and its duties were assigned to the division of administration. The office of State registrar was created and attached to this division. All employees except division heads are nominally under this division.

The personnel in 1930 consisted of the director of public health and three clerks.

Civil service.—The employees of the bureau of public health are not civil service appointees. A change in State administration has not affected the tenure of personnel in the bureau.

Disbursement of funds.—Funds are disbursed by the State auditor on vouchers signed by the director of public health.

Purchases.—Supplies are purchased by the State director of public health.

DIVISION OF COUNTY HEALTH WORK

The division of county health work was established in 1923.

Personnel.—In 1929 the office of chief of this division was discontinued due to lack of funds. Since then the director of public health has taken charge of this division.

Half-mill tax.—One of the first legislative acts passed by the original board of public health was a provision for a specific half-mill health levy in any county wishing to employ a full-time health officer. This law has made possible the development of local full-time health service. Another act in 1921 abolished all municipal health officers and established one officer in complete authority over each county, thus further facilitating the creation of county health units.

Full-time counties.—At the close of 1930 there were eight full-time county health organizations in the State.

The appointment of at least a part-time county health officer in each county is required by statute. Appointments are made by the county commissioners, subject to the approval of the State director of public health. If the incumbent fails, neglects, or refuses to perform his duties, or if the county commissioners fail to make a satisfactory appointment, the State director of public health may appoint an agent to act as health officer at county expense.

County health fund.—At the time of levying other State and county taxes the board of county commissioners may levy a special tax on all taxable property in their respective counties not in excess of one-half mill on the dollar of assessed valuation of such property, and the proceeds of such tax become a county health fund to be used only in defraying the cost of carrying out the health laws and in employing the county health officer and additional employees.

Special appropriation.—The State legislature makes a special appropriation of \$10,000, known as the health-protection fund, to provide financial aid for local health work.

Part-time counties.—In addition to the eight full-time county health organizations, at the close of 1929 there were 23 part-time county units.

Supervision.—The State board of public welfare exercises direct supervision and regulatory powers over the local organizations of the State. Whenever, in the opinion of the director of public health, conditions require the employment of persons in addition to the county health officer to execute properly the health laws, the board of county commissioners may employ such additional persons as the director of public health shall designate, their compensation and expenses to be paid from the county health fund.

The director of public health has direct supervision over the public-health work in the several counties, promotes the establishment of additional full-time units, assists in securing competent health officers, arranges adequate budgets, and assists county units in making epidemiological surveys and aids in the control of epidemics whenever occasion for such aid arises. Each county unit is visited on an average of twice annually by the director of public health and the State sanitary engineer.

The supervising nurse also makes periodic visits to the units which maintain county nursing service.

TABLE 180.—Data on full-time counties operating throughout 1929

NEW MEXICO

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930.	Number of whole-time personnel			
								Health officer	Inspector	Nurse	Clerk
Bernalillo.....	1921	43,827	\$13,720	\$0.31	\$22,822,000	\$0.0006	Albuquerque (25,390)...	1	2	1	1
Santa Fe.....	1921	19,107	4,800	.25	10,659,000	.0005	.....	1	.....	.....	.....
Union.....	1921	11,667	6,395	.55	12,856,000	.0005	.....	1	.....	.....	.....
Valencia.....	1922	15,838	8,462	.53	12,798,000	.0007	.....	1	.....	2	1
Eddy.....	1922	14,219	6,277	.44	9,044,000	.0007	.....	1	.....	.....	.....
Dona Ana.....	1923	26,439	11,200	.42	14,986,000	.0007	.....	1	.....	2	1
Total.....	.....	131,097	50,854	.39	83,165,000	.0006	.....	6	2	5	3

DIVISION OF PREVENTABLE DISEASES

Personnel.—The division of preventable diseases was organized in 1919. The work is carried on by the director of public health serving as the head of the division. There was no additional personnel for this work in 1930.

Reporting of diseases.—Local health officers are required to report cases of communicable diseases to the State bureau of health within 24 hours after receiving notification.

Quarantine.—Quarantine measures are executed by the local health officers acting under the supervision of the director of public health; both have equal powers of enforcement.

Smallpox vaccination.—The vaccination of all children of school age is compulsory, and parents are liable for failure. The county school superintendent is responsible for enforcement in the entire county. Teachers are also required to see that no child enters school without a vaccination certificate.

Emergency fund.—An emergency fund of \$25,000 may be used in case of an emergency dangerous to the public health, upon the resolution of the State board of public welfare with the approval of the governor.

Tuberculosis control.—No separate division for the control of tuberculosis and no definite State program of tuberculosis control have been adopted. The problem of the migratory consumptive has been too great for the State bureau of health to handle with its limited funds.

Sanatoria.—There are no State sanatoria in New Mexico.

Clinics.—No tuberculosis clinics or dispensaries were maintained by the bureau of health during 1929.

Venereal-disease control.—Very little work has been done in the control of venereal diseases. Thus far the program of the State has been wholly educational through the distribution of literature to the public and through lectures to teachers. Free arsphenamine is supplied to indigents by the counties.

Clinics.—A free venereal-disease clinic was maintained formerly in connection with the local health department of Albuquerque, but this was discontinued early in 1925.

Treatments.—No venereal-disease treatments were administered through the bureau of health in 1929.

STATE REGISTRAR'S OFFICE

Organization.—The division of vital statistics was organized in 1920. In 1929 it was abolished and its duties assigned to the division of administration.

Personnel.—The personnel assigned to vital statistics work in 1930 consisted of a State registrar, four full-time clerks, and a statistician.

Registration districts.—Each incorporated city, town, village, and school district is a primary registration district.

Local registrars.—The local health officer who is appointed by the board of county commissioners is the registrar for the county. In school districts subregistrars are appointed by the county health officer, subject to removal by the State board of public welfare. If the local registrar is a health officer, he receives no additional compensation as local registrar. Subregistrars receive a fee of 25 cents paid by the county through the bureau of health for each certificate issued.

Registration area.—In October, 1919, the reporting of births and deaths to the State became compulsory for the first time. The number of certificates filed has steadily mounted. The State is faced with a difficult task in order to meet the minimum requirements of the Federal Census Bureau, inasmuch as hundreds of little settlements scattered through the mountains and canyons frequently do not see a physician for long periods of time. The State was admitted to the registration areas for both births and deaths in 1929.

Reporting of deaths.—In 1929, 90 per cent of all deaths occurring in the State were reported; of these, 50 per cent were reported by undertakers and 50 per cent by others. Deaths must be reported to the local registrars at once and to the State registrar by the 10th of the month.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in this State.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, 60 per cent were reported by physicians, 25 per cent by midwives, and 15 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State supplies the blanks for recording the returns, and the county provides the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the local health officer makes an investigation and may refer the matter to the coroner.

Burial permits.—Burial permits are required and are issued by the local health officer or subregistrar.

Licensing.—Physicians are licensed by the State board of medical examiners; embalmers are licensed by the State board of embalmers; midwives and undertakers are not licensed.

DIVISION OF HEALTH EDUCATION

The division of health education is conducted by the director of public health.

Bulletin.—No regular bulletin is published, but special pamphlets are issued from time to time.

Press service.—There is no regular press service.

Equipment.—The department of health owns 4 stereopticons, about 500 slides, 20 motion-picture films, and several portable exhibits.

Cooperation.—The State bureau of health cooperates with the normal schools and with the State university in health education. The normal schools have enlarged their courses on this subject, and the university has established a department of hygiene in cooperation with the Bernalillo County health unit.

PUBLIC HEALTH LABORATORY

Organization.—Prior to 1920 there was no laboratory in the State in which the routine work of a health department could be handled with the exception of one under private auspices. In February, 1920, under an arrangement whereby the University of New Mexico should provide quarters, light, heat, and half the salary of the chief, in return for some teaching facilities, a laboratory was opened. The State bureau of health has since assumed the entire expense, but the university still houses the laboratory.

Personnel.—The personnel of the public-health laboratory in 1930 consisted of a director, a bacteriologist, and two part-time technicians.

Branch laboratories.—No branch laboratories have been established.

Private laboratories.—A private laboratory must be approved by the State bureau of health if its reports are to be accepted for release of cases from isolation.

Special laboratories.—No laboratories other than the State public-health laboratory have been established by the bureau of public health.

Activities.—During 1929, 14,087 examinations were made by the laboratory. These included Wassermann tests and examinations of typhoid and diphtheria cultures. A summary of diagnostic activities is given on pages 98 to 100. In addition to the diagnostic work the laboratory examines all milk samples for the city of Albuquerque and makes bacteriological examinations of water samples for the entire State.

Fees.—No charge is made for any service performed by the laboratory.

Biological products.—No biological products are manufactured by the State bureau of health, but the laboratory distributes biologicals at cost. The amounts distributed in 1929 were not recorded.

Research.—A small research project on tuberculosis was conducted by the laboratory in 1929.

DIVISION OF SANITARY ENGINEERING AND SANITATION

Personnel.—The staff of the division of sanitary engineering in 1930 consisted of a sanitary engineer and a part-time secretary.

Activities.—Since its organization in 1919 the division of sanitary engineering has supervised all public water supplies, sewerage systems, and swimming pools in the State. The engineer makes at least two inspection trips a year.

Public water supplies and sewerage systems.—A petition for permission to install, add to, or alter any public water system or sewage-disposal plant must be filed with the State bureau of health. A thorough investigation is made by the division of sanitary engineering,

and, if approved, a permit is issued. The permit may be revoked at any time by the State bureau of public health.

Analysis.—Good ground-water supplies are analyzed at least once a year. Untreated surface supplies are analyzed sometimes as frequently as twice a month.

Inspection.—Water-purification plants and sewage-disposal plants are inspected usually twice a year.

Bottled waters.—No specific legislation has been passed concerning bottled waters.

Ice industry.—No regulations have been passed governing the ice industry.

Camps and swimming pools.—The State bureau of health has passed rules and regulations concerning the sanitation of camps and swimming pools.

Roadside water supplies.—No regulations have been passed concerning roadside water supplies, but frequently samples of such supplies are examined, and improvements are suggested. This work is done generally by the full-time county health officers.

Laboratory examinations.—The State laboratory makes routine tests on all public-water supplies without charge.

Foods and drugs.—In 1930 New Mexico had no food and drugs statute comparable to the Federal laws or to the laws of other States. However, a sanitary food law was enforced by the county health officers under the supervision of the division of sanitary engineering and sanitation.

Food handlers.—The medical examination of all persons handling food is required by local ordinance, or, in suspected cases of communicable disease, by State regulation.

Inspection.—The inspection of food for adulteration, and of places where food is handled, such as hotels, slaughterhouses, cold-storage warehouses, bakeries, etc., is a function of the division of sanitary engineering and sanitation.

Shellfish.—The prevention of the pollution of shellfish is a function of the division of sanitary engineering and sanitation.

Milk laws.—In 1930 there were no milk laws, but the bureau of health assumed a certain amount of control over milk supplies, including pasteurization, the laboratory examination of milk supplies, and the inspection of dairies. The standard milk ordinance of the United States Public Health Service has been adopted as the recommended standard for all the larger towns. A State dairy law passed in 1927 is enforced by the State dairy commissioner. It deals chiefly with the economic aspects of the milk industry.

DIVISION OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

Organization.—The division of child hygiene and public-health nursing was organized through Red Cross aid early in 1920.

Personnel.—The personnel of the division of child hygiene and public-health nursing in 1930 consisted of a director, and of a part-time secretary.

Maternal and infant hygiene.—The greater part of the maternal and infant hygiene work is done by local nurses with the advice and assistance of the State. Educational material is provided, prenatal literature is sent to expectant mothers, and a circular on infant care is mailed to the mother upon the registration of a birth.

Clinics.—No permanent prenatal or baby clinics are conducted but temporary clinics are held by the local health departments.

Midwifery.—The county public-health nurses give some instruction to midwives.

Ophthalmia neonatorum.—Physicians, nurses, and midwives are required to use a 1 per cent solution of silver nitrate or a silver compound of equal potency in the eyes of the new born. Cases of ophthalmia neonatorum must be reported within six hours.

Lying-in hospitals and orphanages.—No lying-in hospitals are maintained. Orphanages are not licensed.

Preschool hygiene.—Health conferences for preschool children are held by the county health officers and nurses. The corrective work is done largely by volunteer physicians for indigents or by family physicians. Follow-up work is carried on regularly where public-health nurses are employed. A total of 19 preschool clinics were held in 1929, and 640 children were examined.

School hygiene.—Six school nurses are employed by local communities. The State bureau of health takes an important advisory part in this work.

Public-health nursing.—When nurses are employed on the staff of the division of child hygiene and public-health nursing, the nursing service is supervised by the chief of the division.

Eligibility requirements.—The requirements for a public-health nurse in New Mexico conform to the standard requirements of the national organization of public-health nursing.

Number of nurses.—Public-health nurses are employed by 8 full-time county units, by 2 part-time units, and by 5 school boards.

TABLE 181.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

NEW MEXICO

Division	1919	1920	1921	1922	1923	1924
Total budget.....	\$10,747	\$22,839	\$31,104	\$40,543	\$44,041	\$38,547
State legislative budget.....	9,667	13,000	13,000	27,000	27,000	19,237
Division of administration.....	3,600	4,500	4,500	5,500	5,500	5,500
Division of sanitary engineering and sanitation.....	1,000	3,600	3,800	3,800	3,800	3,800
Public-health laboratory.....		4,000	6,000	6,000	6,000	6,000
Division of child hygiene and public-health nursing.....		3,600	3,600	4,000	9,900	9,900
Full-time counties ¹		1,000	52,793	11,819	68,126	82,978
Division of county health work.....					4,575	4,375
Division of vital statistics.....			3,800	3,800	3,800	3,860
Division of preventable diseases.....						
Division of health education.....						

Division	1925	1926 ¹	1927	1928	1929	1930
Total budget.....	\$54,472		\$45,711	\$43,859	\$43,468	\$50,400
State legislative budget.....	31,237		28,355	28,000	27,500	34,500
Division of administration.....	5,555		6,112	2,454	3,483	8,300
Division of sanitary engineering and sanitation.....	4,108		3,759	3,573	3,844	4,700
Public-health laboratory.....	6,197		6,575	6,891	7,208	7,300
Division of child hygiene and public-health nursing.....	9,975		10,560	3,955	3,572	4,600
Full-time counties ¹	62,577		68,300	61,070	62,070	75,110
Division of county health work.....	11,085		3,210	2,849	2,430	(²)
Division of vital statistics.....	3,860		2,454	2,792	3,774	8,500
Division of preventable diseases.....			2,277	3,173	1,825	(²)
Division of health education.....			766	1,549	1,362	(²)

¹ Fiscal year changed. First complete under new system July 1, 1926, to June 30, 1927.² U. S. Public Health Service funds included. (See Table 182.)³ Red Cross Funds included. (See Table 182.)⁴ Rockefeller Foundation funds included. (See Table 182.)⁵ County funds included. (See Table 182.)⁶ U. S. Children's Bureau funds included. (See Table 182.)⁷ Not included in total budget.⁸ Under division of administration.TABLE 182.—*Total appropriations for State bureau of public health, by years*

NEW MEXICO

Year	Total appropriation	State legislature	Source of funds and amounts						Fees
			U. S. Public Health Service	U. S. Children's Bureau	County	U. S. Interdepartmental Social Hygiene Board	Red Cross	Rockefeller Foundation	
1919 ¹	\$10,747	\$9,667	\$1,080						
1920.....	22,839	13,000	2,680			\$3,559	\$3,600		
1921.....	31,104	13,000	2,560			1,944	3,600	\$10,000	
1922.....	40,543	27,000	400	\$2,296		1,944		8,903	
1923.....	44,041	27,000	1,167	5,942				9,932	
1924.....	38,547	19,237	826	6,183				12,300	
1925.....	54,472	31,237	473	12,430	\$3,600			6,731	
1926.....	(²)								
1927.....	45,711	28,355	201	12,430				4,725	
1928.....	43,859	28,000	189	12,430				3,240	
1929.....	43,468	27,500	298	12,430				3,240	
1930.....	50,400	34,500	200		14,000			1,200	\$500

¹ Bureau of health established in July, 1919. No prior appropriations.² Including \$12,000 deficiency appropriation for 1924 and 1925 (\$6,000 each).³ Fiscal year changed. First complete year under new arrangement, July 1, 1926, to June 30, 1927.

NEW YORK

PUBLIC-HEALTH COUNCIL

Organization.—The public-health council consists of the commissioner of health and six members, all appointed by the governor with the advice of the senate. Four of the members must be physicians with training or experience in sanitary science, and one member must be a sanitary engineer.

Term of office and compensation.—The members serve for a period of six years, the term of one member expiring each year. They receive a yearly salary of \$1,000 and reasonable traveling expenses.

Meetings.—The public-health council meets once a month except during July and August. Special meetings may be called by the chairman of the council.

EXECUTIVE OFFICER

Legal qualifications.—The State commissioner of health must be a graduate of an incorporated medical college and have had at least 10 years' experience in the actual practice of his profession. In addition he must be skilled in and have had experience in public-health duties and sanitary science. He is appointed by the governor from outside the membership of the public-health council. The appointment is subject to confirmation by the State senate.

Term of office and salary.—The State commissioner of health serves for two years. He receives a yearly salary of \$12,000 and all necessary traveling expenses while on official business.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Powers of public-health council.—The public-health council of New York differs from the boards of health in most States in that it has no executive, administrative, or appointive powers. It merely advises and makes recommendations to the commissioner of health. It has legislative power, however, and, with the commissioner, establishes and, from time to time, amends sanitary regulations in the sanitary code.

Powers of the commissioner.—The commissioner of health exercises general supervision over the work of all local health authorities except those in New York City and is charged with the enforcement of laws. The commissioner has appointive power and general control of expenditures and supplies.

Powers of divisional directors.—It is the policy of the commissioner to place the directors of the various divisions in full charge of the administration of their divisions. Each divisional director is held responsible for the success of his administration. Each week a conference which is attended by all the directors, associate directors,

and leading officials is held for the purpose of discussing the various problems of the department of health.

Judicial powers.—The commissioner may hold hearings on matters which come within the scope of the public health law and sanitary code.

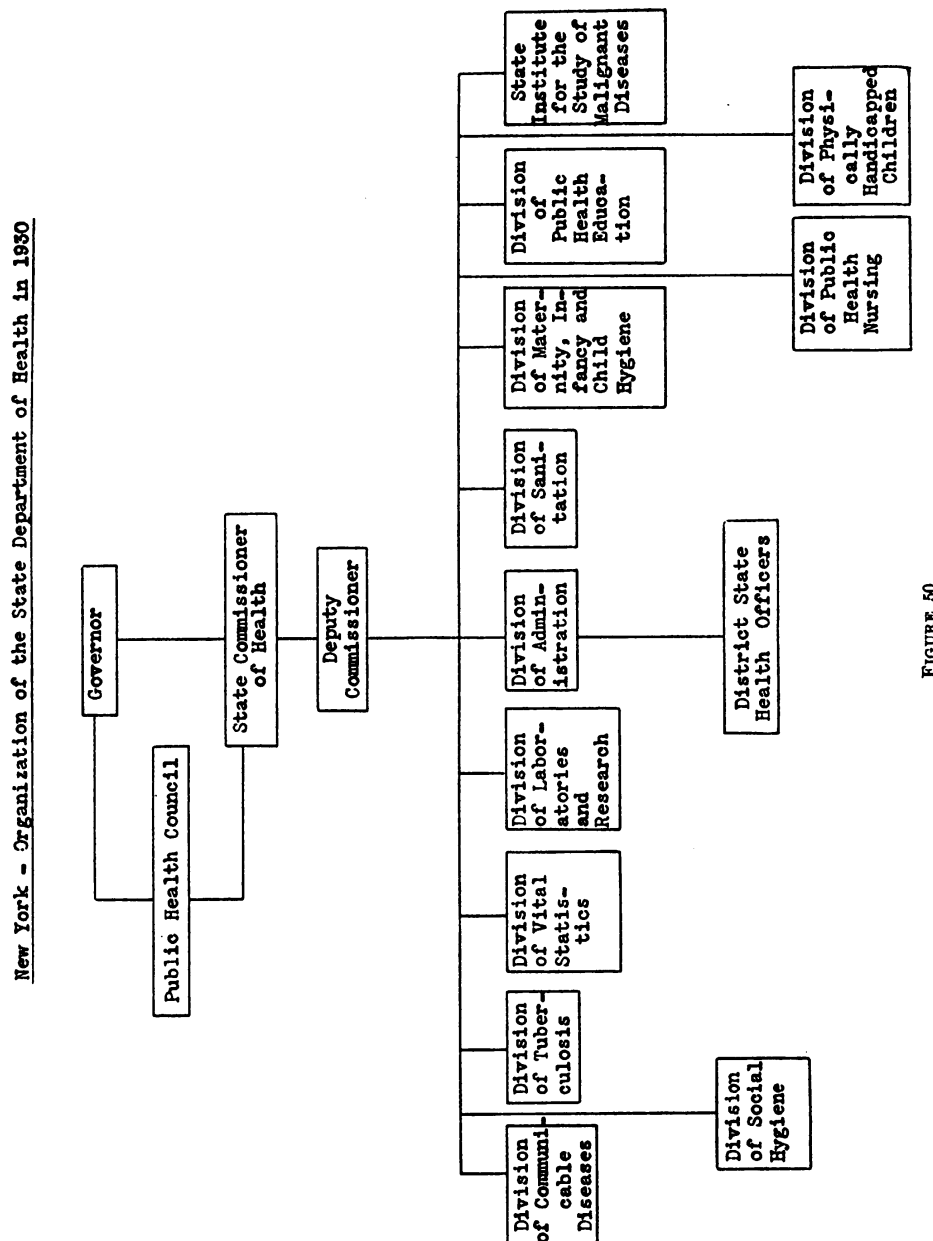


FIGURE 50

Powers in general.—The State department of health has the authority to make and enforce regulations concerning sanitation, water pollution, sewage disposal, milk, nuisances, communicable diseases, quarantine, and midwifery. The enforcement of the food and drugs laws is a function of the department of agriculture and markets with

the cooperation of the State board of pharmacy of the department of education. The State department of health and the department of agriculture and markets cooperate in enforcing the milk laws. Enforcement of the medical practice law is under the jurisdiction of the department of education.

APPROPRIATIONS

The State legislature makes an annual appropriation for purposes stated in the budget submitted by the State department of health. The legislature meets in January of each year. The fiscal year of the health department ends June 30.

TABLE 183.—*Divisions of the State department of health in 1930*¹

NEW YORK

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$624, 576	64	\$12, 000	\$158, 030	\$170, 030
Division of communicable diseases.....	41, 437	16	5, 500	26, 030	31, 530
Division of tuberculosis.....	55, 514	16	5, 500	30, 200	35, 700
Division of social hygiene.....	57, 437	16	5, 500	28, 820	34, 320
Division of laboratories and research.....	680, 215	258	9, 000	402, 100	411, 100
Division of vital statistics.....	102, 722	50	5, 500	67, 500	73, 000
Division of sanitation.....	\$ 95, 294	27	5, 500	69, 980	75, 480
Division of maternity, infancy, and child hygiene.....	\$ 97, 136	27	5, 500	55, 310	60, 810
Division of public-health nursing.....	221, 660	71	4, 500	134, 600	139, 100
Division of public-health education.....	49, 647	15	5, 000	21, 530	26, 530
Division of orthopedic surgery.....	23, 445	7	5, 500	11, 340	16, 840
State institute for study of malignant diseases.....	\$ 215, 415	87	10, 000	138, 010	148, 010

¹ Total appropriation, \$2,273,693; total appropriation exclusive of tuberculosis sanatoria funds, \$2,273,693; total State legislative appropriation, \$2,273,693.

² Includes \$355,288 for State aid to counties.

³ Does not include a special appropriation of \$90,000 for an investigation of milk.

⁴ Nurses working in other divisions charged to budget for the division of public-health nursing.

⁵ Does not include \$300,000 appropriation for a supply of radium.

DIVISION OF ADMINISTRATION

Personnel.—The personnel of the division of administration in 1930 consisted of the commissioner of health, the deputy commissioner, a secretary, an assistant secretary, 15 district health officers, 4 secretaries, 12 stenographers, an audit clerk, 10 clerks, and 3 accountants.

Civil service.—The employees of the State department of health, except the commissioner and deputy commissioner, are civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Activities.—Budgets are prepared, appointments made, and expenditures, equipment, and supplies are supervised through this office.

Disbursement of funds.—All bills approved by the State department of health go to the State comptroller for auditing and payment.

Purchases.—Requisitions for purchases are drawn by the directors of the various divisions. These requisitions must be approved by the commissioner or the deputy commissioner before indebtedness is contracted. Competitive bids are necessary for all expenditures over \$500. Supplies are purchased by the State department of standards and purchase.

Local health organizations.—The State gives aid upon application to counties engaging in certain public-health work. In 1929 health work was carried on by 59 cities, 597 towns, 293 villages, and 146 consolidated health districts in the State.

Full-time county units.—At the close of 1930 there were four full-time county units in this State.

Supervision.—The State sanitary code is effective throughout the State, except in New York City. Each city, town, or village may enact additional regulations which are not inconsistent with the State law or sanitary code. All local health organizations are subject to the supervision of the commissioner of health. He may remove a local health officer after due hearing.

TABLE 184.—Data on full-time counties operating throughout 1929

NEW YORK

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officer	Nonmedical health officer	Inspector	Nurse	Clerk
Cattaraugus.	1923	72, 446	\$66, 000	0. 91	\$70, 720, 000	\$0. 0009	Olean (21,262)...	3	2	1	21	9
Suffolk.....	Jan. 1, 29	155, 759	76, 100	. 49	180, 514, 000	. 0004	-----	1	2	1	11	1
Total..	-----	228, 225	142, 100	. 62	251, 234, 000	. 0006	-----	4	4	2	32	10

¹ Exclusive of Millbank funds.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—The staff of the division of communicable diseases in 1930 consisted of a director, an associate director, an epidemiologist, a secretary-stenographer, two stenographers, a chief clerk, a statistician, seven clerks, and two copyists.

Reporting of diseases.—Cases of communicable diseases are reported daily by the local health officers to the State department of health and to the district State health officers except in the cities of New York, Buffalo, Syracuse, and Rochester. In these cities weekly reports only are made unless unusual circumstances warrant more frequent reports.

Quarantine.—Enforcement of quarantine measures is under the control of the local health officers, subject to the supervision of the State department of health.

Smallpox vaccination.—Smallpox vaccination for school children is compulsory in cities of more than 50,000 population.

Emergency fund.—There is an emergency fund of \$1,200 to be used for public-health purposes at the discretion of the commissioner of health.

DIVISION OF TUBERCULOSIS

Personnel.—In 1930 the personnel of the division of tuberculosis included the director, an associate director, a supervisor of tuberculosis hospitals, a supervisor of clinics, a field agent, a radiographer, a secretary, two stenographers, five clerks, and an X-ray technician.

Activities.—The State department of health furnishes expert assistance and advice on tuberculosis control to local health authorities, inspects annually the local tuberculosis hospitals and dispensaries, furnishes literature and other educational material, maintains State registration of all cases of tuberculosis reported outside New York City, approves location, plans, and equipment for hospitals, camps, etc., and maintains a mobile clinic unit. Aside from the clinic service conducted in rural communities the tuberculosis program of the State department of health is principally advisory. The committee on tuberculosis and public health of the State charities aid association cooperates with the State health department in organizing, coordinating, unifying, and giving leadership and direction to the tuberculosis movement in the State exclusive of New York City. This committee is the parent organization of 54 county and 18 city committees, through which it operates for the most part. It has been of inestimable value to the division of tuberculosis in promoting tuberculosis work and carrying out its program.

Sanatorium.—New York has one State tuberculosis sanatorium with a bed capacity of 300 for incipient cases only. Medical treatment is under the supervision of the State commissioner of health in this institution, while the administration is under the supervision of a board of trustees. The appropriation for this work, which amounted to \$385,476 in 1930, is not made through the State department of health.

County, municipal, and private sanatoria.—Twenty-nine county, four municipal, and eighteen private or semiprivate sanatoria are maintained in this State. These sanatoria are inspected annually by the State department of health and recommendations are made relative to improving their standards.

Clinics.—During 1929 the State department of health conducted 162 clinics with 5,437 patients and local health organizations maintained approximately 2,800 clinics with 25,340 patients.

Mobile clinic unit.—The mobile clinic unit maintained by this division renders expert consultation service on diseases of the lungs in those counties which have no special facilities for carrying out such a program.

Preventoria.—There are no preventoria directly under the supervision of this division, but a number of hospitals with and without special provision for the care of children maintain beds used as preventoria beds.

Nursing service.—Two nurses devote their full time to tuberculosis work. One is in attendance at the clinics and the other assists county-tuberculosis nurses to coordinate their programs. District State supervising nurses devote part time to tuberculosis work.

DIVISION OF SOCIAL HYGIENE

Personnel.—The director of the division of social hygiene is also a United States Public Health Service physician. During 1930 he was aided by an assistant, two diagnosticians and lecturers, a supervisor of clinics, an investigator and lecturer, a secretary-stenographer, two stenographers, and six clerks.

Activities.—The State department of health has a definite program of work in social hygiene, consisting of educational measures, which include the education of physicians in diagnosis and treatment in the need for routine examinations for syphilis in cases of pregnancy, and in the education of the lay people to whom accurate and scientific information regarding the control of these diseases is disseminated; medical measures to provide adequate laboratory and clinic facilities, to secure ample hospital accommodations when necessary, and to provide a social worker to follow up the work done in each clinic; legal measures to support and urge the passage of necessary ordinances and to demand the enforcement of laws and ordinances; and constructive and repressive measures. The State department of health advises and consults with the local health departments.

Clinics.—Fifty-five local clinics under the supervision of the State department of health administer treatments free to all indigent patients. Persons able to pay a reasonable fee are referred to a private practitioner.

Treatments.—During 1929 a total of 168,638 treatments was administered.

DIVISION OF VITAL STATISTICS

Personnel.—In 1930 the director of the division of vital statistics was aided by an assistant director, a supervisor of records, 5 tabulators, 7 statisticians, 2 secretary-stenographers, 6 stenographers, and 34 clerks.

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Registration district.—Each city, incorporated village, town, State hospital, charitable, or penal institution is a primary registration district.

Local registrars.—In towns and villages the local registrar is appointed by the town or village board of trustees; in cities the registrar is appointed by the mayor. Each registrar, physician, or midwife is entitled to a fee of 25 cents for each certificate filed by him. The local registrars are also paid \$2 for each complete monthly report transmitted to the commissioner of health. These fees are paid by the local municipalities.

Registration area.—New York was admitted to the registration area for deaths in 1890 and was one of the original States in the establishment of the registration area for births in 1915.

Reporting of deaths.—In 1929, 99.5 per cent of all deaths occurring in the State were reported; of these, 97 per cent were reported by physicians and 3 per cent by others. By law, undertakers are not permitted to report deaths. Deaths must be reported to the local registrar within 72 hours and to the State commissioner of health by the 5th of each month.

Legal standards.—The standard birth and death certificate, the international list of the causes of death, and the model law, with modifications, are used in this State.

Reporting of births.—In 1929, 96 per cent of the births occurring in the State were reported; of these, 93.8 per cent were reported by physicians, 5.5 per cent by midwives, and 0.7 per cent by others. Births must be reported to the local registrar within five days and to the State commissioner of health by the 5th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—Cases of death without medical attendance must be reported to the local health officer. If he believes that death was due in any way to crime or neglect, he must report the fact to the coroner.

Burial permits.—Burial permits must be obtained prior to the burial or removal of a dead body. They are issued by the local registrars.

Licensing.—Physicians are licensed by the State department of education; midwives and undertakers are licensed by the State department of health.

DIVISION OF LABORATORIES AND RESEARCH

Organization.—The authority to establish laboratories in the State is conferred on the commissioner of health by statute. Following the reorganization of the State department of health in 1913 and

1914, the division of laboratories and research took over what had previously been known as the State hygienic laboratory. Since that date, responding to an insistent and increasing demand for laboratory service, the division has developed progressively.

Personnel.—In 1930 the staff of the State public-health laboratories consisted of a director, a librarian, 48 secretaries and office assistants, 25 bacteriologists, 2 pathologists, 11 chemists, 22 technicians, and 48 helpers. In addition 75 laborers and cleaners, and 25 in the buildings-service group, including engineers, firemen, carpenter, janitor, chauffeurs, etc., were employed. A farm located 9 miles from Albany is maintained in connection with the central laboratory. All animals used in biological work are kept on the farm; the small laboratory animals are bred there. Farm produce is also raised.

Branch laboratory.—In 1915 a branch laboratory was established. This branch laboratory, although located in New York City, serves the neighboring counties only. Provision for it is made in the budget for the central laboratory.

Local laboratories.—Rather than establish branch laboratories, the State department of health has encouraged the development of local laboratories throughout the State. The provision of the sanitary code which requires physicians to submit "to the laboratory of the State department of health or to a laboratory approved by the State commissioner of health" specimens from every person affected with certain specified communicable diseases has effected operation in accordance with the standards established by the central laboratory in Albany in more than 100 county, municipal, institutional, and private laboratories. These laboratories, while independently maintained and operated, are in effect branch laboratories serving various parts of the State. Uniform standards are thus assured in all districts of the State.

State aid to local laboratories.—The State legislature in order to encourage the establishment of local laboratories in 1922 provided that State aid be given to localities at present unable to support such laboratory service. The appropriations thus provided have made possible a marked advance in the laboratory service of the State. Sixteen counties and five municipalities are now operating with this assistance.

Private laboratories.—The State department of health has the same supervision over private laboratories, exclusive of those in New York City, as it has over all approved laboratories in the State.

Special laboratories.—No laboratories other than the central and branch laboratories are maintained by the State department of health. The central laboratory provides for the bacteriological examination and chemical analysis of samples of water from the public supplies of the State. The chemical laboratory for testing foods is under the

jurisdiction of the State department of agriculture and markets; that for testing drugs is under the State board of pharmacy.

Activities.—During 1929, 285,883 examinations were made by the central and branch laboratories. These included Wassermann tests and examinations of diphtheria and typhoid cultures and tuberculosis sputa. A summary of diagnostic activities is given on pages 98 to 100.

Fees.—No charges are made for any examinations performed by the laboratories.

Biological products.—Antitoxins, serums, and vaccines are prepared and distributed free of charge by the laboratories. A record of the biological products distributed in 1929 is on page 103.

Research.—Special investigations of epidemics and research connected with the various branches of laboratory work are carried on to study the phenomena of infection and immunity and to standardize technical procedure.

DIVISION OF SANITATION

Personnel.—The staff of the division of sanitation in 1930 included the director, 9 sanitary engineers, 4 inspectors of pasteurizing plants, a milk specialist, 9 sanitarians for milk-control work, 2 milk bacteriologists, a secretary, 9 stenographers, and a clerk.

Public water supplies.—The public health law empowers the State commissioner of health to enact rules and regulations for the protection from contamination of public water supplies, including the water supplies of the State and Federal institutions. It is the duty of the division of sanitation to prepare such regulations and to cooperate with the local authorities in enforcing them.

Analysis.—Some water supplies are analyzed two or three times a year; other supplies, especially those under competent control, are analyzed at less frequent intervals.

Inspection.—Water-purification plants are inspected yearly.

Bottled waters.—There are no specific statutory regulations concerning the control of bottled waters by the State department of health.

Ice industry.—There is no legislation of general application governing the ice industry.

Sewage-disposal systems.—Plans for sewerage or other waste-disposal systems must be submitted to and receive the approval of the State engineer. Permits for their operation are issued by the commissioner of health. A penalty is provided for operating a sewerage system without a permit.

Camps.—The sanitary code contains rules and regulations concerning the sanitation of camps. A permit to operate such camps must be obtained from the local health officer. The division of sanitation inspects organized camps and enforces the regulations.

Swimming pools.—Rules and regulations have been passed concerning the sanitation of swimming pools.

Roadside water supplies.—No specific regulations have been passed concerning roadside water supplies.

Milk laws.—The department of agriculture and markets enforces milk regulations in so far as they pertain to chemical contents, adulteration, accredited herd plan, etc. The State department of health, however, has jurisdiction over the grading of milk pasteurization, bacteria content, its relation to communicable disease, the issuance of permits for the sale of milk, and the inspection of dairies.

DIVISION OF MATERNITY, INFANCY, AND CHILD HYGIENE

Personnel.—The personnel of the division of maternity, infancy, and child hygiene in 1930 included a director, an associate director, 2 pediatricians, 2 obstetricians, a nutrition expert, a dental hygienist, 26 nurses, an executive clerk, a secretary, 10 stenographers, a clerk, a chauffeur, and a field agent.

Prenatal hygiene.—Thirty-four itinerant demonstration clinics each month during 1929 were conducted by the health department in various parts of the State. In addition 50 prenatal clinics were held each month by local organizations.

Midwifery.—Midwives are licensed and supervised by the State department of health with the cooperation of the local health officers and the public-health nurses. Quarterly letters of instruction are sent out, inspections are made, and lectures or group instruction is given.

Ophthalmia neonatorum.—Physicians and midwives are required to use such prophylactic measures as the instillation of a 1 per cent solution of nitrate of silver into the eyes of the new born.

Lying-in hospitals and orphanages.—Regulations for lying-in hospitals have been enacted by the State department of health. Lying-in hospitals are licensed by the local boards of health. Orphanages are licensed by the department of social welfare.

Infant and preschool hygiene.—Infant and preschool examinations were given during 1929 in 226 itinerant clinics conducted by the health department and in 145 clinics maintained by local organizations. Between 5,000 and 6,000 children are examined every year. It requires about two years to cover all rural districts. Wherever child-health consultations are held, follow-up work for the correction of defects is carried on by the local public-health nurse, or, if there is no local nurse, by a State nurse sent for the purpose.

School hygiene.—The medical inspection of school children is a function of the State department of education. Annual examinations are required.

DIVISION OF PUBLIC-HEALTH NURSING

Personnel.—In 1930 the division of public-health nursing consisted of a director, 66 supervising nurses, a secretary-stenographer, 2 stenographers, and a clerk. The 66 public-health nurses of the State health department in 1930 included 15 district supervising nurses; 2 nurses in charge of communicable diseases; 22 nurses for maternity, infancy, and child hygiene; 2 supervisors of midwives; 14 nurses for orthopedic and after-care poliomyelitis; 2 tuberculosis nurses; 2 venereal-disease nurses; a nurse for public-health education; 3 nurses for the Indian reservation; an office nurse; and 2 general-assignment nurses.

Activities.—The division of public-health nursing supplies service to other divisions of the department of health, assists local communities to secure public-health nursing service and solve problems, directs and coordinates the activities of all nurses of the department, gives talks to group of nurses and organizations upon request, conducts correspondence with field public-health nurses, and keeps a roster of public-health nurses in the State.

Number of nurses.—There are 1,362 local public-health nurses employed in New York State exclusive of New York City.

Eligibility requirements.—State public-health nurses must be graduates of an accredited hospital and be registered or eligible for registration in New York State, must have had at least one year of satisfactory experience under competent supervision, and must also have completed a course in public-health work, approved by the public-health council. Other requirements according to the type of work required may be made by organizations employing nurses.

DIVISION OF ORTHOPEDIC SURGERY

Personnel.—The personnel of this division in 1930 consisted of a director, 4 orthopedic surgeons, a supervising nurse, 12 nurses, a clerk, and a secretary-stenographer.

Legislation.—A State law provides that counties, with 50 per cent aid from the State, assume responsibility for the correction of orthopedic defects.

STATE INSTITUTE FOR THE STUDY OF MALIGNANT DISEASES

Personnel.—In 1930, the personnel of the State institute for the study of malignant diseases consisted of a director, 2 secretaries, 2 pathologists, 2 biological chemists, 1 other chemist, 2 physicists, 2 biologists, a surgeon, 8 physicians, 2 radiographers, 14 technical assistants, 3 stenographers, 4 clerical assistants, a superintendent of the hospital, 11 nurses, 3 artisans, and 20 employees for the care of the house and buildings.

Activities.—The State institute for the study of malignant diseases provides diagnostic service on tissues. About 10,000 cases are examined annually. It also provides X-ray, radium, and surgery treatment. Research work is carried on in biological chemistry, clinical pathology, and physics as related to cancer therapy.

DIVISION OF PUBLIC-HEALTH EDUCATION

Personnel.—The staff of the division of public-health education in 1930 included the director, an editorial assistant, a supervisor of exhibits, two motion-picture operators, an editing clerk, a secretary, a stenographer, a copy holder, four clerks, and a chauffeur.

Bulletin.—A weekly bulletin called "Health News" is published. Special pamphlets are issued from time to time.

Press service.—Weekly radio talks are broadcast through station WGY at Schenectady and are sent to the newspapers as news releases. Other news releases are sent out occasionally.

Lecturers.—Lectures are given by members of the various divisions.

Equipment.—The State department of health owns a stereopticon, 40 to 45 slides, 45 motion-picture films, wax models, 5 sets of posters, and a mobile moving-picture outfit for health service in rural communities.

Cooperation.—The State departments of education and of health cooperate in carrying out their programs.

TABLE 185.—Total budget, State legislative budget for health work, and budgets by divisions, by years

NEW YORK

Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$405,787	\$472,820	\$642,060	\$644,408	\$983,450	\$1,036,975
State legislative budget.....	405,787	472,820	642,060	644,408	983,450	1,036,975
Central administration.....						86,150
Division of communicable diseases.....						126,549
Division of tuberculosis control.....						16,240
Division of social hygiene.....						44,787
Division of laboratories.....						408,410
Division of vital statistics.....						59,112
Division of sanitation.....						38,338
Division of maternity, infancy, and child hygiene.....						22,838
Division of public-health nursing.....						29,868
Division of public-health education.....						38,841

Division	1921	1922	1923	1924	1925
Total budget.....	¹ \$1,067,602	¹ \$945,954	¹ \$1,121,054	^{1,2} \$1,419,026	² \$1,366,572
State legislative budget.....	968,492	923,850	1,111,230	1,329,160	1,286,530
Central administration.....	87,509	92,910	164,564	186,262	199,692
Division of communicable diseases.....	125,290	104,568	35,827	35,722	45,110
Division of tuberculosis control.....	28,337	20,750	23,713	35,399	37,495
Division of social hygiene.....	¹ 50,506	¹ 49,791	¹ 33,441	¹ 36,976	38,006
Division of laboratories.....	407,000	509,000	527,200	506,550	554,170
Division of vital statistics.....	66,143	61,101	62,613	61,413	62,869
Division of sanitation.....	42,010	21,791	26,386	34,058	45,669
Division of maternity, infancy, and child hygiene.....	33,288	22,981	131,091	² 210,521	² 288,593
Division of public-health nursing.....	73,374	72,165	69,869	52,106	56,026
Division of public-health education.....	36,985	28,967	32,239	39,005	41,864

¹ U. S. Public Health Service funds for venereal-disease control included. (See Table 186.)

² U. S. Children's Bureau funds included. (See Table 186.)

TABLE 185.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

NEW YORK—Continued

Division	1926	1927	1928	1929	1930
Total budget.....	\$1,507,960	\$1,858,372	\$2,349,871	\$2,121,090	\$2,273,693
State legislative budget.....	1,427,918	1,778,330	2,269,829	2,121,090	2,273,693
Central administration.....	216,932	312,776	358,249	404,243	624,576
Division of communicable diseases.....	41,706	42,138	42,086	38,298	41,437
Division of tuberculosis control.....	40,301	48,170	49,299	53,148	55,514
Division of social hygiene.....	42,759	44,859	44,797	49,447	57,437
Division of laboratories.....	538,880	525,770	576,270	786,140	680,215
Division of vital statistics.....	81,549	85,204	88,191	87,386	102,722
Division of sanitation.....	60,621	66,872	64,735	73,204	95,294
Division of maternity, infancy, and child hygiene.....	157,041	94,519	85,010	79,041	97,136
Division of public-health nursing.....	76,731	167,800	179,711	182,292	221,660
Division of public-health education.....	37,694	41,925	43,296	43,423	49,647
State institute for study of malignant diseases.....		221,330	239,929	193,104	215,415
Division of orthopedic surgery.....				18,729	23,445

U. S. Child's Bureau funds included. (See Table 186.)

TABLE 186.—*Total appropriation for State department of health, by years*

NEW YORK

Year	Total appropriation	Source of funds and amounts		
		State legislature	U. S. Public Health Service for venereal diseases	U. S. Children's Bureau
1915.....	\$405,787	\$405,787		
1916.....	472,820	472,820		
1917.....	642,060	642,060		
1918.....	644,408	644,408		
1919.....	983,450	983,450		
1920.....	1,036,975	1,036,975		
1921.....	1,067,602	968,492	\$99,110	
1922.....	945,954	923,850	22,104	
1923.....	1,121,054	1,111,230	9,824	
1924.....	1,419,026	1,329,160	9,824	\$80,042
1925.....	1,366,572	1,286,530		80,042
1926.....	1,507,960	1,427,918		80,042
1927.....	1,858,372	1,778,330		80,042
1928.....	2,349,871	2,269,829		80,042
1929.....	2,121,090	2,121,090		
1930.....	2,273,693	2,273,693		

NORTH CAROLINA

STATE BOARD OF HEALTH

Organization.—The State board of health is composed of nine members. Five of the members are appointed by the governor, and four are elected by the State medical society.

Term of office and compensation.—The members serve for a term of six years;¹ terms are overlapping. The members receive a salary of \$4 per diem and expenses while attending the meetings of the board.

Meetings.—One meeting of the board is required each year. It is held in April in conjunction with the meeting of the State medical society. Special meetings may be called by the president of the board.

Executive committee.—An executive committee of the board meets four times a year.

¹ See footnote 13, Table 1, p. 11.

North Carolina - Organization of the State Department of Health in 1930.

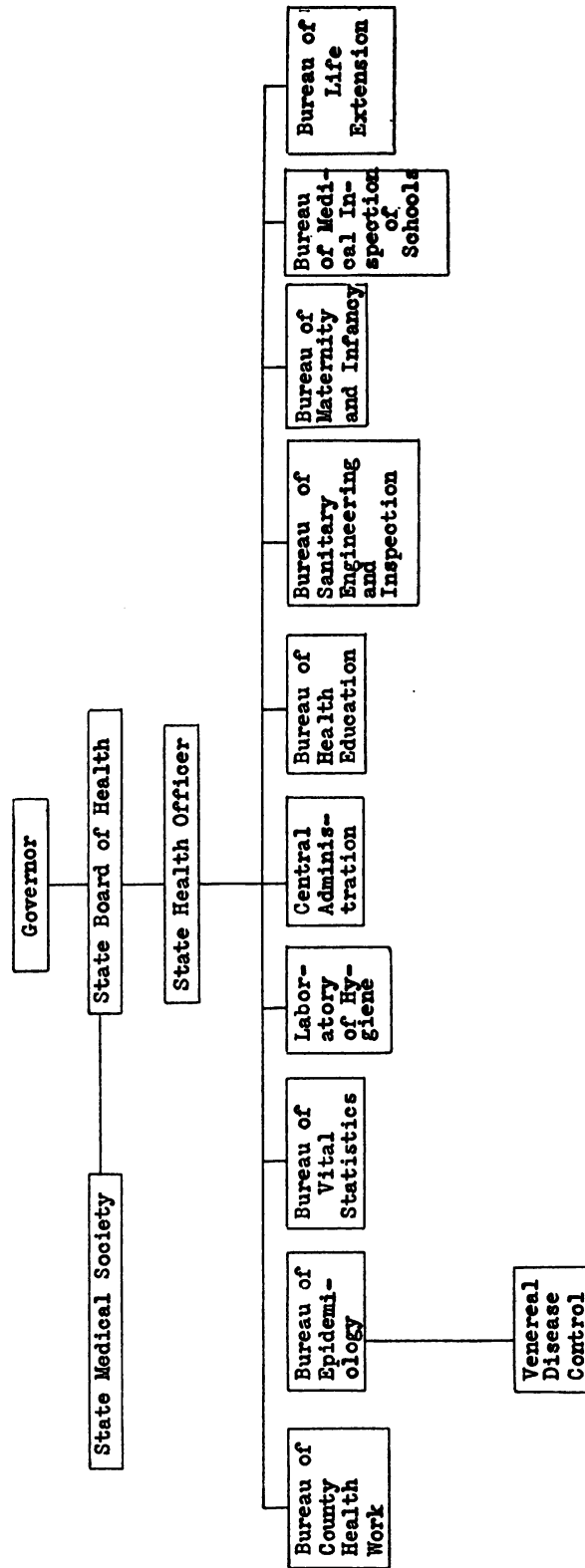


FIGURE 51

EXECUTIVE OFFICER ²

Legal qualifications.—The State health officer, who is also the secretary of the board of health, must be a physician registered in the State. He is elected by the State board of health from outside their number and is not a member of the board.

Term of office and salary.—The State health officer serves for a period of six years. He receives a yearly salary of \$8,000 and necessary traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has judicial, legislative, and executive powers in regard to sanitation in general, water pollution, sewage disposal, communicable diseases, and quarantine. The control of nuisances and midwifery are functions of the local boards of health; the enforcement of the medical practice law rests with the State board of medical examiners; and the control of food adulteration is under the jurisdiction of the department of agriculture. There are no State laws regarding milk supplies. The standard milk ordinance is enforced in 52 municipalities by local boards of health.

APPROPRIATIONS

The State legislature makes an annual appropriation to the State department of health, which allots the sum to the various bureaus. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 187.—*Bureaus of the State department of health in 1930* ^a

NORTH CAROLINA

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$50,645	7	\$8,000	\$14,750	\$22,750
Bureau of county health work.....	8,415	2	4,600	1,800	6,400
Full-time counties.....	766,921				
Bureau of epidemiology.....	10,490	4	5,250	3,340	8,590
Bureau of vital statistics.....	29,630	18	4,600	21,600	26,200
Laboratory of hygiene.....	104,750	^b 31	6,000	49,500	55,500
Bureau of sanitary engineering and inspection.....	87,320	^b 31	4,600	47,995	52,595
Bureau of maternity and infancy.....	50,580	8	4,600	11,900	16,500
Bureau of medical inspection of schools.....	69,780	19	4,000	29,570	33,570
Bureau of health education.....	11,410	3	4,800	2,880	7,680
Bureau of life extension.....	11,600	2	4,600	1,500	6,100

^a Total appropriation, \$1,191,541; total appropriation exclusive of tuberculosis sanatoria funds, \$1,191,541; State legislative appropriation, \$491,470.

^b Officials included whose time is devoted to more than one activity.

^c See footnote 10, Table 4, p. 32.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the State health officer, his assistant, a secretary, a stenographer, a senior accounting clerk, and two mailing clerks.

Civil service.—The employees of the State department of health are not civil-service appointees. Changes in the State administration do not affect the tenure of personnel in the State department of health.

Disbursement of funds.—The disbursement of funds is in the hands of the State treasurer and the State auditor.

Purchases.—Supplies for all bureaus are purchased by the State board of health through the central purchasing officer.

BUREAU OF COUNTY HEALTH WORK

Personnel.—The staff of the bureau of county health work in 1930 consisted of a director and a secretary.

Appropriations.—Appropriations for county health organizations are made by the counties under the general law covering necessary expenditures. A special appropriation of \$5,000 is provided for county health work.

Full-time units.—At the close of 1930 there were 39 full-time county health units. All counties are required to employ a county physician and a county quarantine officer. Some of these officials are on a part-time basis.

Municipal health departments.—There were five municipal health departments in 1929.

Supervision.—The State department of health acts in an advisory capacity toward local health organizations, except in cases of enforcement of sanitation and quarantine laws. Visits are made to each organized local unit by the director of county health work as frequently as possible. At least four visits a year are made.

TABLE 188.—Data on full-time counties operating throughout 1929

NORTH CAROLINA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Non-medical health officers	Inspectors	Nurses	Clerks
Guilford.....	1911	127,620	\$19,357	\$0.15	\$138,500,000	\$0.0001	Greensboro (50,065) High Point (34,471).....	1	2	1	2	1
Robeson.....	1912	65,474	11,137	.17	43,056,000	.0003	.....	1	.....	.....	1	1
Durham.....	1912	64,701	54,506	.84	82,544,000	.0007	Durham (48,998).....	1	3	4	10	1
New Hanover.....	1912	42,537	52,860	1.24	54,968,000	.0010	Wilmington (32,288).....	2	2	5	8	2
Sampson.....	1912	39,782	6,317	.16	23,767,000	.0003	.....	1	.....	.....	1	1
Nash.....	1915	51,609	7,500	.14	30,985,000	.0002	Rocky Mount (20,545) ..	1	.....	.....	1	1
Wilson.....	1916	44,103	12,027	.27	44,042,000	.0003	Wilson (12,412).....	1	.....	1	1	1
Davidson.....	1917	47,351	10,171	.21	32,272,000	.0003	.....	1	.....	.....	1	1
Northampton.....	1917	26,586	7,332	.28	13,994,000	.0005	.....	1	.....	.....	1	.....
Lenoir.....	1917	35,072	12,753	.36	31,036,000	.0004	Kinston (12,102).....	1	.....	1	2	1
Pitt.....	1917	53,574	11,792	.22	6,938,000	.0017	.....	1	.....	.....	2	1
Forsyth.....	1918	108,256	36,244	.33	151,957,000	.0002	Winston-Salem (72,596) ..	2	.....	1	8	1
Rowan.....	1918	54,862	17,617	.32	50,101,000	.0004	Salisbury (16,678).....	1	.....	2	2	1
Wake.....	1918	92,534	34,726	.38	83,685,000	.0004	Raleigh (36,199).....	1	1	5	5	1
Edgecombe.....	1919	46,896	10,348	.22	31,069,000	.0003	.....	1	.....	1	2	1
Cumberland.....	1919	44,100	10,788	.24	30,424,000	.0004	Fayetteville (12,693).....	1	.....	1	2	1
Granville.....	1919	28,533	8,953	.31	19,587,000	.0005	.....	1	.....	.....	1	1
Surry.....	1919	39,020	8,119	.21	24,990,000	.0003	.....	1	.....	.....	1	1
Cabarrus.....	1919	43,175	11,135	.26	38,477,000	.0003	Concord (11,631).....	1	.....	.....	2	1
Halifax.....	1920	52,347	13,813	.26	37,325,000	.0004	.....	1	.....	1	2	1
Vance.....	1920	26,844	6,613	.25	19,851,000	.0003	.....	1	.....	.....	1	1
Buncombe.....	1920	94,523	22,588	.24	93,041,000	.0002	Ashville (47,998).....	1	.....	1	2	1
Wayne.....	1920	52,199	18,456	.35	49,503,000	.0004	Goldsboro (14,603).....	1	.....	2	2	1
Wilkes.....	1920	35,812	6,933	.19	14,761,000	.0005	.....	1	.....	.....	1	1
Craven.....	1921	31,100	11,000	.35	30,910,000	.0004	New Bern (11,946).....	1	.....	1	1	1
Columbus.....	1921	36,977	5,431	.15	23,782,000	.0002	.....	1	.....	.....	.....	1
Bertie.....	1921	25,667	5,000	.19	14,855,000	.0003	.....	1	.....	.....	.....	.....
Bladen.....	1921	22,119	6,827	.31	14,058,000	.0005	.....	1	.....	.....	1	.....
Mecklenburg.....	1921	123,229	22,189	.18	122,612,000	.0002	Charlotte (79,017).....	1	.....	1	4	1
Beaufort.....	1923	34,624	7,937	.23	29,770,000	.0003	.....	1	.....	.....	1	1
Henderson.....	1923	22,883	6,220	.27	18,525,000	.0003	.....	1	.....	.....	.....	1
Rutherford.....	1924	39,544	6,694	.17	26,965,000	.0002	.....	1	.....	.....	.....	1
Richmond.....	1924	33,262	9,093	.27	30,734,000	.0003	.....	1	.....	.....	1	1
Johnston.....	1925	55,847	5,193	.09	39,789,000	.0001	.....	1	.....	.....	.....	1
Randolph.....	1927	36,053	5,611	.16	19,978,000	.0003	.....	1	.....	.....	.....	1
Moore.....	1928	27,373	7,882	.29	23,401,000	.0003	.....	1	.....	.....	2	1
Gaston.....	1928	75,371	12,931	.17	71,453,000	.0002	Gasontia (16,669).....	1	.....	.....	2	1
Total.....		1,881,559	524,293	.28	1,613,705,000	.0002	.....	39	8	27	73	35

BUREAU OF EPIDEMIOLOGY

Personnel.—In 1930 the director of the bureau was assisted by a secretary, a statistical clerk, and a general clerk.

Reporting of diseases.—Cases of communicable diseases must be reported to the State department of health within 24 hours of the receipt of the report by the county quarantine officer.

Quarantine.—Quarantine measures are enforced by the county quarantine officers.

Smallpox vaccination.—Smallpox vaccination for school children is not compulsory for the State as a whole, but several counties have made it a compulsory measure within their respective boundaries.

Emergency fund.—A general State emergency fund of \$250,000 may be used at the discretion of the State budget commission in case of an epidemic or severe outbreak.

Tuberculosis.—The State department of health does not maintain any tuberculosis clinics, dispensaries, or sanatoria.

Sanatoria.—There is one State sanatorium with a capacity of 470 beds with white and negro adult, child, and prison divisions. The appropriation for the operation of this sanatorium, which amounted to \$247,050 in 1930, is made to a board of directors appointed by the governor. In addition to the State sanatorium, there are 11 county sanatoria with a capacity of 629 beds, 21 private and semi-private sanatoria with 886 beds, and a Federal sanatorium for war veterans with 865 beds.

Clinics.—The State sanatorium conducts daily clinics at the sanatorium and traveling clinics through its extension division. During 1929, 31 such clinics were carried on with a total of 17,604 patients, attending. In addition, the county sanatoria in Forsyth, Guilford, Mecklenburg, and New Hanover Counties conduct daily clinics at each county sanatoria and hold some extension clinics in their respective counties.

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Venereal disease.—The control of venereal diseases is a function of the bureau of epidemiology. Educational literature is distributed and free treatments of salvarsan are furnished to indigent patients.

Clinics and treatments.—No venereal-disease clinics were conducted or treatments administered under the supervision of the health department in 1929. Venereal-disease clinics are conducted under city boards of health and full-time county health organizations.

BUREAU OF VITAL STATISTICS

Personnel.—According to law the State health officer is ex officio the State registrar of vital statistics. The deputy State registrar is the director of the bureau of vital statistics. In 1930 he was assisted by a secretary, a stenographer, a typist-clerk, an accounting clerk, 2 statistical clerks, a mailing clerk, 3 file clerks, 4 general clerks, and 3 transcribing clerks.

Registration districts.—The cities, townships, and incorporated towns are the primary registration districts of the State.

Local registrars.—The local registrars are chosen by the board of county commissioners and by the mayors of towns. They receive from the county or town treasurer on order of the State department of health a fee of 50 cents for each record issued.

Registration area.—North Carolina was admitted to the registration area for deaths in 1916 and to the registration area for births in 1917.

Reporting of deaths.—In 1929, 95 per cent of all deaths occurring in the State were reported. Deaths must be reported to the local registrar before burial and to the State registrar by the 5th of each month.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in the State.

Reporting of births.—In 1929, 92 per cent of the births occurring in the State were reported; of these, 70 per cent were reported by physicians and 30 per cent by midwives. Births must be reported to the local registrar within five days and to the State registrar by the 5th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local registrars pay the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner is notified and an inquest is held.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners; embalmers are licensed by the State board of embalmers. In a number of counties midwives are licensed by the county board of health.

LABORATORY OF HYGIENE

Personnel.—The staff of the laboratory of hygiene in 1930 consisted of a director; 8 technicians, 3 of whom were part-time workers; 4 bacteriologists; 3 serologists; 2 chemists; 4 clerks; a stenographer; and 8 helpers, 4 of whom were part-time workers.

Branch and private laboratories.—No branch laboratories have been established. Laboratories are maintained by some county and city health departments and are financed from the general local budgets. The State department of health has no supervision over the private laboratories maintained in the State.

Special laboratories.—No special laboratories are maintained by the various bureaus of the health department.

Activities.—During 1929, 84,693 examinations were made, including Wassermann tests, examinations of diphtheria and typhoid cultures, and water analyses. A summary of diagnostic activities is given on pages 98 to 100.

Fees.—All laboratory work is performed free of charge except urinalyses, analyses of autogenous vaccines, pathological examinations and analyses of private, bottled and spring water sold in the State. The fees collected are allocated to the laboratory.

Biologicals.—Some diphtheria toxin-antitoxin and silver-nitrate ampules are purchased, otherwise all biologicals are manufactured by

the laboratory. A charge of 50 cents a package for diphtheria antitoxin and 75 cents a package for tetanus antitoxin is made. Rabies treatments are free to indigents only. Other biological products are distributed free of charge to physicians and health officers. All vaccines and sera are distributed by the laboratory of hygiene except silver nitrate solution which is issued through the bureau of maternity and infancy. An analysis of biological products distributed during 1929 is given on page 103.

BUREAU OF SANITARY ENGINEERING AND INSPECTION

Personnel.—In 1930 the staff of the bureau of sanitary engineering and inspection included the chief sanitary engineer; 4 associate engineers, 2 of whom were part-time officials, 7 assistant engineers; a bacteriologist, a biologist-chemist, a laboratory helper; 13 sanitary inspectors, a secretary, a stenographer, and a general clerk.

Public water supplies and sewage-disposal systems.—The State department of health has general supervision and care of all inland waters. From time to time it examines water supplies and makes rules and regulations necessary to prevent contamination. Plans for the installation, alteration, or extension of public water supplies and sewage-disposal systems must be submitted to the State department of health.

Bottled waters.—Every person selling water for domestic purposes must file annually with the treasurer of the State board of health an affidavit as to the gross amount received from sales, and the tax on the sale of bottled waters for the current year is based upon this affidavit. Analyses of bottled waters are made by the State laboratory. Failure to transmit samples within five days after the receipt of the sterilized bottle or container from the State laboratory constitutes a misdemeanor and the dealer is liable to a fine of \$25.

Analysis and inspection.—Public water supplies are analyzed monthly. Water-purification plants are inspected frequently.

Ice industry.—No specific legislation has been passed governing the ice industry.

Activities.—The bureau is charged with the enforcement of the sanitary privy laws, the hotel inspection law, and the supervision of jails and prison camps.

Sanitary privy law.—According to the sanitary privy law passed in 1919, each residence located within 300 yards of another residence must be provided with sewerage, a septic tank, or a sanitary privy which complies in construction and maintenance with the requirements prescribed by the State board of health. It is the duty of the bureau of sanitary engineering to recommend suitable types of privies; to exercise supervision over the construction and maintenance of privies; and to organize, supervise, and direct a force of sanitary inspectors to carry out the provisions of this law. After inspection, a

license is fastened to all approved privies and the use of insanitary privies is prohibited. Any person wilfully interfering with the enforcement of this law is guilty of a misdemeanor and is subject to a fine of not less than \$100 and not more than \$1,000, or imprisonment. The sanitary privy law does not apply to any city with a population of 20,000 or over, if the authorities of the city officially request the State board of health to exempt it from the provisions of this law. Also it does not apply to residences located more than 1 mile from the corporate limits of a town or city.

Hotel inspection.—For the purpose of enforcing the laws concerning the sanitary management of hotels and restaurants, the State is divided into districts. An inspector is appointed for each district.

Jails and prison camps.—All jails and convict prison camps must be constructed and maintained in compliance with the regulations laid down by the State department of health. These regulations cover sanitation, diet, and the prevention of contagious diseases. The jails and camps are inspected and a card of approval or disapproval is posted in a conspicuous place.

Summer camps.—In 1926 regulations were passed pertaining to the location and sanitary conditions of summer camps.

Swimming pools and roadside water supplies.—No regulations have been passed concerning swimming pools and roadside water supplies.

Milk ordinance.—The standard milk ordinance was passed by the State department of health in 1924 and recommended for adoption by municipalities. The State department of health renders assistance to municipalities in the enforcement of the ordinance, which was in effect in 52 municipalities in 1929.

Shellfish.—The prevention of the pollution of shellfish is a function of this bureau.

BUREAU OF MATERNITY AND INFANCY

Personnel.—The personnel of the bureau of maternity and infancy in 1930 consisted of the director, a supervisor of nurses, three field nurses, a secretary, and two general clerks.

Prenatal clinics.—No prenatal clinics are conducted by the State department of health but the bureau of maternity and infancy through field personnel assisted in the prenatal clinics maintained by local health departments.

Midwifery.—Midwives are required to register with the State board of health. A course of instruction for midwives is conducted by the State department of health nurses in a number of counties.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum are reportable and a fee of 50 cents is paid from the State treasury for each case reported. The use of a prophylactic approved by the State department of health is required for the new born. Silver nitrate

ampules are distributed free of charge by the bureau of maternity and infancy.

Lying-in hospitals and orphanages.—There are no lying-in hospitals in the State. Orphanages are licensed by the State department of public welfare.

Infant and preschool hygiene.—No infant or preschool clinics have been conducted exclusively by the State department of health, but assistance through field personnel in such work has been given to the county health departments.

Public-health nursing.—The activities of the public-health nursing service are divided between the bureau of maternity and infancy and the bureau of medical inspection of schools.

Eligibility requirements.—A public-health nurse must be a registered nurse with special training and experience in public-health work.

BUREAU OF MEDICAL INSPECTION OF SCHOOLS

Personnel.—The staff of the bureau of medical inspection of schools in 1930 included a director, seven dentists, seven school nurses, three clinic nurses, and an anesthetist.

Activities.—A medical examination of each school child is required once in every three years. The work is carried on by the State department of health, county health officers, and teachers. Parents are notified of defects found in their children.

Special clinics.—Traveling dentists are employed by the State to conduct dental clinics. Tonsil and adenoid clinics are held throughout the State during the summer months.

BUREAU OF HEALTH EDUCATION

Personnel.—The personnel of the bureau of health education consisted in 1930 of a director of educational work, a secretary, and a motion-picture operator.

Publicity.—Publicity is controlled by the director of this bureau.

Press service.—A newspaper item and a Sunday feature are released each week.

Bulletin.—A monthly bulletin is issued and special pamphlets are published from time to time.

Equipment.—The State department of health owns a stereopticon, 150 slides, and 60 motion-picture films.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

BUREAU OF LIFE EXTENSION

Personnel.—The personnel of the bureau of life extension in 1930 consisted of a director and a laboratory technician.

Activities.—This bureau conducts demonstration clinics usually before small groups of physicians, in the technique of periodical examinations of the apparently healthy. Lectures for the lay public on the importance of such medical examinations are also provided.

TABLE 189.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years*

NORTH CAROLINA

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$191,698	\$197,750	\$227,246	\$273,578	\$361,058	\$513,736
State legislative budget.....	50,500	55,500	73,272	89,210	134,802	208,653
Central administration.....	12,299	10,000	18,322	14,089	34,074	33,418
Bureau of county health work.....	2,000	2,000	3,000	3,000	1,866	1,883
Full-time county health units.....	133,528	135,170	146,308	179,475	188,519	254,454
Bureau of vital statistics.....	15,656	13,623	13,723	18,588	16,446	15,592
Laboratory of hygiene.....	18,186	24,898	21,587	24,532	45,720	46,451
Bureau of sanitary engineering and inspection.....	10,030	12,059	17,306	15,812	9,522	31,984
Bureau of epidemiology.....			7,000	9,057	17,133	16,887
Venereal disease control.....					33,809	46,702
Bureau of medical inspection of schools.....				9,025	7,361	57,094
Bureau of maternity and infancy.....					6,609	9,270

Bureau	1921	1922	1923	1924	1925
Total budget.....	\$631,690	\$607,410	\$729,102	\$802,914	\$797,147
State legislative budget.....	330,000	307,083	367,500	425,000	429,822
Central administration.....	49,401	50,416	56,670	81,567	76,372
Bureau of county health work.....	5,117	14,082	22,749	22,878	21,493
Full-time county health units.....	302,943	270,978	355,255	379,991	382,603
Bureau of vital statistics.....	24,158	24,863	23,845	27,434	24,936
Laboratory of hygiene.....	75,240	42,717	79,097	101,042	103,598
Bureau of sanitary engineering and inspection.....	55,374	50,658	52,915	59,472	62,001
Bureau of epidemiology.....	13,979	10,547	12,909	12,673	8,500
Venereal disease control.....	31,325	31,025	17,555	5,488	4,643
Bureau of medical inspection of schools.....	60,665	60,943	63,132	68,935	72,740
Bureau of maternity and infancy.....	13,488	51,182	44,975	40,433	40,260

Bureau	1926	1927	1928	1929	1930
Total budget.....	\$1,090,548	\$957,471	\$1,087,889	\$1,136,308	\$1,191,541
State legislative budget.....	389,644	502,461	432,461	430,000	491,470
Central administration.....	21,192	41,540	68,800	67,350	50,645
Bureau of county health work.....	(⁶)	9,270	8,450	8,510	8,415
Full-time county health units.....	678,975	463,230	666,048	711,251	756,921
Bureau of vital statistics.....	24,000	24,000	31,400	31,520	29,630
Laboratory of hygiene.....	102,730	101,382	104,587	100,756	104,750
Bureau of sanitary engineering and inspection.....	62,000	68,150	74,750	76,020	87,320
Bureau of epidemiology.....	8,500	28,330	(⁶)	(⁶)	10,490
Venereal disease control.....	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)
Bureau of medical inspection of schools.....	60,000	60,000	60,000	60,000	69,780
Bureau of maternity and infancy.....	94,751	71,169	65,330	61,272	50,580
Bureau of health education.....	20,400	20,400	11,740	11,740	11,410
Bureau of life extension.....				(⁶)	11,600

¹ Local funds included. (See Table 190.)

² Rockefeller Foundation funds included. (See Table 190.)

³ Census bureau funds included. (See Table 190.)

⁴ U. S. Public Health Service funds included. (See Table 190.)

⁵ U. S. Children's Bureau funds included. (See Table 190.)

⁶ Included under central administration.

⁷ Includes 6 months only, due to change in fiscal year.

⁸ Discontinued.

TABLE 190.—Total appropriations for State department of health, by years

NORTH CAROLINA

Year	Total appropriation	Source of funds and amounts								
		State legislature	U. S. Public Health Service ¹	U. S. Children's Bureau	County	County towns	Rockefeller Foundation	Fees	Census	Others
1915.....	\$191,698	\$50,500	-----	-----	-----	\$125,000	\$3,594	\$1,345	\$279	\$10,980
1916.....	197,750	55,500	-----	-----	\$5,170	125,000	-----	1,617	609	9,854
1917.....	227,246	73,272	-----	-----	10,687	125,000	6,172	1,201	700	10,215
1918.....	273,578	89,210	-----	-----	31,231	125,000	13,861	1,604	4,543	8,128
1919.....	361,058	134,802	\$27,827	-----	38,481	125,000	10,228	6,217	3,532	14,972
1920.....	513,736	208,653	25,823	-----	86,616	125,000	17,512	27,138	3,550	19,442
1921.....	631,690	330,000	10,870	-----	112,637	125,000	13,077	7,285	3,499	29,321
1922.....	607,410	307,083	8,414	\$22,127	113,571	125,000	13,750	633	3,928	12,903
1923.....	729,102	367,500	4,934	22,716	163,720	125,000	20,150	1,082	2,936	31,064
1924.....	802,914	425,000	1,605	18,174	171,464	125,000	23,300	1,020	4,393	27,957
1925.....	797,147	429,822	1,000	18,000	171,553	125,000	17,550	1,426	3,932	28,864
1926.....	1,090,548	389,644	1,000	36,260	234,339	271,468	16,150	-----	-----	141,687
1927.....	957,471	502,461	500	45,519	146,736	150,575	11,500	-----	-----	100,180
1928.....	1,087,889	432,461	950	22,000	242,598	276,580	4,200	-----	-----	109,100
1929.....	1,136,308	430,000	950	32,519	270,571	279,768	8,349	-----	-----	114,151
1930.....	1,191,541	491,470	1,250	-----	346,018	286,320	3,333	-----	-----	63,150

¹ This column also carries funds received from the Interdepartmental Social Hygiene Board.² Includes 6 months only, due to change in fiscal year.

NORTH DAKOTA

STATE HEALTH ADVISORY COUNCIL

Organization.—On July 1, 1923, by act of the legislature of North Dakota, a State health advisory council was established. The council, which corresponds to a State board of health, is composed of five members; three members are appointed by the governor and two the State superintendent of public instruction and the president of the State tuberculosis association, are ex officio members of the council. Of the 3 members appointed by the governor, 1 must be a physician, 1 a dentist, and 1 a woman.

Term of office and compensation.—The term of office is six years for each appointive member; the term of one member expires every two years. The members of the State health advisory council do not receive a salary, but their actual traveling expenses, when in attendance at meetings, are paid.

Meetings.—Semiannual meetings are held and special meetings may be called by the president of the board.

EXECUTIVE OFFICER

Legal qualifications.—The State health officer is elected by the advisory council from outside its own number. He must be a graduate of a regular medical school with special training in public-health work, but he need not be a resident of the State.

Term of office and salary.—The State health officer serves for an indefinite term and receives a yearly salary of \$3,600. In addition

North Dakota - Organization of the State Department of Health in 1930

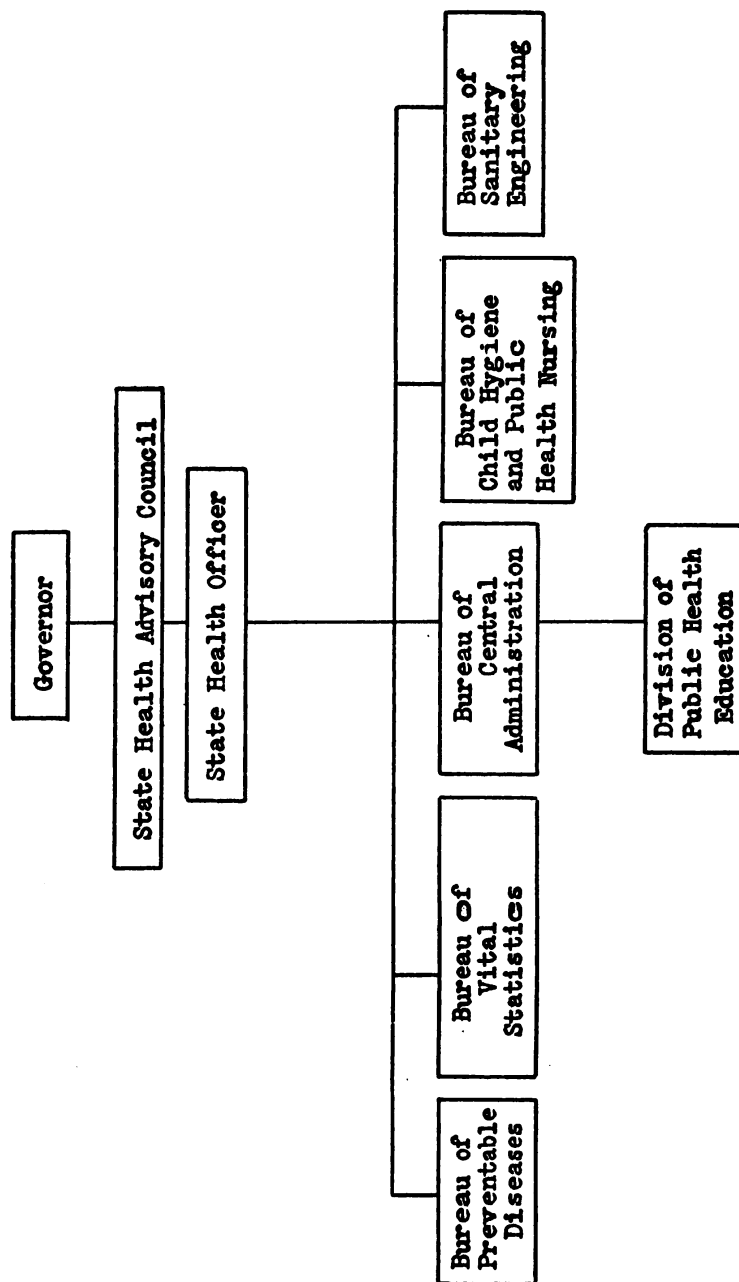


FIGURE 52

\$3,750 a year is appropriated for the traveling expenses of the entire staff, including those of two traveling clinics.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has judicial, legislative, and executive powers concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. The control of milk supplies, food, and drugs, intrusted to the food and drug commission. Enforcement of the medical practice law and the control of midwifery are not functions of the State department of health.

APPROPRIATIONS

The State appropriates a sum of money for the State department of health as a whole; this is subdivided as to salaries, clerk hire, postage, office supplies, furniture and fixtures, printing, miscellaneous, and travel. A special budget of \$2,500 for indexing old birth and death certificates is provided. The total amount is allotted to the several bureaus as indicated by the following table, which includes the amounts received from outside sources. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 191.—*Bureaus of the State department of health in 1930*¹

NORTH DAKOTA

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of central administration.....	\$10,500	2	\$3,600	\$1,800	\$5,400
Bureau of preventable diseases.....	5,875	2	3,000	1,200	3,200
Bureau of vital statistics.....	5,400	3	1,800	2,400	4,200
Bureau of sanitary engineering.....	4,925	2	2,400	1,200	3,600
Bureau of child hygiene and public-health nursing...	11,750	4	3,000	4,800	7,800
Public-health laboratory ²	19,630	9	300	14,160	14,460

¹ Total appropriation, \$38,450; total appropriation exclusive of tuberculosis sanatoria funds, \$38,450; total appropriation from State legislature, \$33,950.

² Not under the supervision of the State department of health.

³ Officials included whose time is devoted to more than 1 activity.

⁴ This amount is in addition to salary received as dean of the medical school.

BUREAU OF CENTRAL ADMINISTRATION

Personnel.—The State health officer carries on the administration of the department of health with the assistance of a clerk.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Vouchers originating in the State department of health are sent to the State auditing board for approval. The State auditor then issues a warrant which is paid by the State reasurer.

Purchases.—Supplies are purchased on requisition made to the State supply department.

Supervision.—The State department of health exercises supervisory and advisory power over the local health organizations. County health work is carried on by the local health departments, each of which consists of the State's attorney in the local district, and the county superintendent of schools as members ex officio, and of a physician appointed as local health officer once a year by the board of county commissioners. He is a part-time official. He receives \$300 per year for his office work together with \$5 per day and expenses when engaged in health work outside his office. His tenure of office usually lasts one year. His principal duties as health officer are the enforcement of quarantine measures and the control of communicable diseases. He has supervision over the health departments of townships and villages but not over those of organized cities. These operate under a special city charter. The city health officer is required to make reports to the State department of health. Each city council is required by law to pass a health ordinance.

Publicity.—The State health officer is in charge of the publicity of the health department.

Bulletin.—No regular or special bulletins are published.

Press service.—Mimeographed circular letters and newspaper items are issued from time to time.

Equipment.—The State department of health has no educational material such as motion-picture machines, films, etc.

Cooperation.—The State department of health and the State department of education jointly conduct public health education programs in the public schools.

BUREAU OF PREVENTABLE DISEASES

Personnel.—The director of the bureau of preventable diseases is in charge of the control of communicable diseases, including venereal disease. In 1930 he was assisted by a clerk.

Reporting of diseases.—Cases of communicable diseases must be reported weekly to the State department of health by the city and county health officers.

Quarantine.—Local health departments have control of quarantine measures.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children in North Dakota.

Emergency fund.—The governor has a fund which may be used in case of a severe or extensive outbreak of disease.

Tuberculosis.—No specific division is organized for the control of tuberculosis. The State has no special program for tuberculosis work. Cases are card indexed and the information given to the State tuber-

culosis association. This association maintains a traveling clinic and does educational work.

Sanatorium.—There is one State sanatorium under the control of the State board of administration. The amount appropriated in 1930 for the sanatorium was \$138,335.

Venereal disease clinic.—A clinic for the treatment of venereal disease is maintained at Minot by the city health department and supervised by the State department of health. Indigent and police cases are treated by the city health officer or city physician.

Treatments.—During 1929, a total of 650 treatments were administered at the Minot city clinic, 282 of these being salvarsan. The number of patients receiving treatment was 1,927.

BUREAU OF VITAL STATISTICS

Personnel.—The bureau of vital statistics was created by law in July, 1923. Under this law the executive officer is the State registrar. In 1930 the work was carried on by a trained statistician, who gave part of her time to this work, a full-time clerk, and an index clerk for births and deaths.

Registration districts.—The townships, villages, and cities compose the primary registration districts of the State.

Local registrars.—The law designates that the township, village, and city clerks shall serve as local registrars. In unorganized territories the local registrars are appointed by the State registrar. All local registrars both ex officio and those appointed by the State registrar are paid by county commissioners a fee of 25 cents for each certificate issued. In cities where full-time auditors who receive a salary of more than \$100 per month serve as local registrars they receive no fees.

Registration area.—North Dakota was admitted to the registration areas for both births and deaths in 1924.

Reporting of deaths.—In 1929, 99 per cent of all deaths occurring in the State were reported, of these, 96 per cent were signed by physicians and 4 per cent by others. Deaths must be reported to the local registrar within 48 hours and to the State department of health by the 5th of the month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 97 per cent of the births occurring in the State were reported; of these, 89 per cent were reported by physicians, 6 per cent by midwives, and 5 per cent by others. Births must be reported to the local registrars within 3 days and to the State department of health by the 5th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health provides the blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner, who fills out the death certificate.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State board of embalmers. Midwives are not licensed.

STATE PUBLIC-HEALTH LABORATORY

Organization.—The State laboratory is under the control of the University of North Dakota and is quite separate from the State department of health. The legislature makes a special appropriation for its maintenance and for that of three branch laboratories which function under the same budget.

Personnel.—The personnel of the State public health laboratories in 1930 consisted of a part-time director, who is also dean of the medical school, and a director for each branch laboratory. Each branch laboratory usually has a part-time clerk also.

Branch laboratories.—The branch laboratories are located at Bismarck, Fargo, and Minot.

Private laboratories.—The State department of health has no supervision over the private laboratories of the State.

Chemical laboratory.—A chemical laboratory is maintained by the State food and drugs commissioner of the State regulatory department.

Activities.—In addition to routine diagnostic examinations, water and milk analyses are made by the State laboratory. During 1929, 22,466 examinations were made by the laboratory. These included Wassermann tests, examinations of diphtheria cultures, analyses of milk and water, examination of typhoid cultures, and examinations of tuberculosis sputa. A summary of diagnostic examinations made by the laboratory is given on pages 98 to 100.

Fees.—Fees are charged for blood counts, examinations of stomach contents, chemical analyses, autogenous vaccines, guinea-pig inoculations, human milk analyses, and chemical analyses of private water supplies. These fees are allocated to the laboratory.

Biological products.—No biological products are manufactured or issued by the State department of health.

BUREAU OF SANITARY ENGINEERING

A bureau of sanitary engineering was created by law in 1923, and in 1928 an appropriation was made for the bureau.

Personnel.—A director and one clerk comprised the staff of this bureau during 1930.

Public water supplies and sewage-disposal systems.—Plans for water supplies and sewage systems must be submitted in triplicate to the State department of health for approval before installation.

Analyses and inspection.—Regular analyses and inspections of public water supplies and sewage-disposal systems are made by a qualified sanitary engineer with the assistance of the public-health laboratories.

Bottled waters.—Bottled waters are regulated by the pure food and drugs department.

Ice industry.—There are no regulations governing the ice industry.

Camps.—Rules and regulations have been made concerning the sanitation of camps.

Swimming pools and roadside water supplies.—The health department exercises no control over swimming pools or roadside water supplies.

BUREAU OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

Personnel.—In 1930 the staff of the bureau of child hygiene and public-health nursing consisted of a medical director, a field nurse, and a secretary.

Maternity and infancy program.—The program of this bureau consists of general field clinics or conferences for mothers, infants, and midwives; a complete system of records and follow-up work for the improvement of birth registration; and the establishment of permanent county and local health organizations.

Midwifery.—Letters of instruction are occasionally sent to midwives.

Traveling clinic.—The State department of health maintains a traveling clinic, which remains from a week to 10 days in each county and from 1 to 2 days at the various points visited. During 1929, 6,000 infants and preschool children were examined. The law requires the county commissioners to provide treatment for indigent cases.

Ophthalmia neonatorum.—Physicians and midwives are urged to use a 1 per cent solution of silver nitrate in the eyes of the new born, and midwives must report immediately all cases of inflamed eyes.

Lying-in hospitals and orphanages.—All hospitals and orphanages are licensed by the State child welfare division of the State board of administration.

School hygiene.—The boards of county commissioners are authorized to employ one or more licensed physicians or graduate nurses to visit the schools and to examine the pupils. Such examinations have been conducted and financed by the local health departments. One

of the nurses in this bureau is given supervision over the county and school nurses of the State.

Eligibility requirements.—The regulations of the State specify that public-health nurses must be graduate nurses with training in public-health work. They must also be approved by the State health officer.

TABLE 192.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

NORTH DAKOTA

Bureau	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$2,300	\$2,300	\$4,050	\$4,050	¹ \$12,548	¹ \$9,324	¹ \$7,700	¹² \$12,700
State legislative budget.....	2,300	2,300	4,050	4,050	6,274	6,274	4,650	4,650
Bureau of central administration.....	500	500	1,000	1,000	1,200	1,200	1,000	1,000
Bureau of vital statistics.....	500	500	500	500	1,000	1,000	1,500	1,500
Bureau of venereal diseases.....					¹ 6,274	¹ 3,050	¹ 9,324	¹ 9,324
Bureau of child hygiene and public-health nursing.....								¹ 6,000
Public health laboratory ¹					1,550	2,750	3,318	3,439
Bureau of preventable diseases.....								
Bureau of sanitary engineering.....								

Bureau	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	¹² \$15,512	¹² \$15,531	² \$28,375	² \$26,575	² \$30,750	² \$30,950	¹³ \$38,450	¹³ \$38,450
State legislative budget.....	8,900	8,900	20,075	20,075	20,250	20,250	33,950	33,950
Bureau of central administration.....	5,000	5,000	5,975	5,975	6,160	6,160	10,500	10,500
Bureau of vital statistics.....	2,000	2,000	8,400	8,400	8,400	8,400	5,400	5,400
Bureau of venereal diseases.....	¹ 6,886	¹ 6,427	4,200	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
Bureau of child hygiene and public-health nursing.....	² 7,000	² 7,000	² 8,000	² 8,000	² 8,000	² 8,000	11,750	11,750
Public-health laboratory ¹	3,250	19,250	19,250	19,250	18,300	18,300	19,630	19,630
Bureau of preventable diseases.....				4,200	4,200	² 4,200	² 5,875	² 5,875
Bureau of sanitary engineering.....						² 4,200	² 4,925	² 4,925

¹ U. S. Public Health Service funds included. (See Table 193.)

² U. S. Children's Bureau funds included. (See Table 193.)

³ Rockefeller Foundation funds included. (See Table 193.)

⁴ Discontinued.

⁵ Not under the supervision of the State health department. Conducted by the State university.

TABLE 193.—Total appropriations for State department of health, by years

NORTH DAKOTA

Year	Total appropriation	Source of funds and amounts				
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Rockefeller Foundation	Commonwealth fund
1915.....	\$2,300	\$2,300				
1916.....	2,300	2,300				
1917.....	4,050	4,050				
1918.....	4,050	4,050				
1919.....	12,548	6,274	\$6,274			
1920.....	9,324	6,274	3,050			
1921.....	7,700	4,650	3,050			
1922.....	12,700	4,650	3,050	\$5,000		
1923.....	15,512	8,900	612	6,000		
1924.....	15,531	8,900	153	6,000	\$478	
1925.....	28,375	20,075		6,500		¹ \$1,800
1926.....	26,575	20,075		6,500		
1927.....	26,750	20,250		6,500		
1928.....	30,950	20,250		6,500	4,200	
1929.....	38,450	33,950	300		4,200	
1930.....	38,450	33,950	300		4,200	

¹ Fargo demonstration.

OHIO

PUBLIC HEALTH COUNCIL

History.—Organized public-health work on a state-wide basis was recognized by the general assembly of Ohio in the passage April 14, 1886, of an act creating a State board of health. This board with a secretary as its executive officer continued until July 1, 1917, when it was replaced by the State department of health with a commissioner of health as administrative and executive officer and a public health council vested with legislative and judicial powers and duties. The Ohio administrative code, which became effective July 1, 1921, changed the name of the organization to the department of health. This act also transferred the power to appoint the executive officer and to create divisions within the department from the public health council to the director of health, subject to the approval of the governor. The act of 1921 also transferred the bureau of vital statistics from the office of secretary of state to the department of health.

Organization.—The present department of health consists of a director of health and the public health council. The council is composed of the director and four other members, all of whom are appointed by the governor. Two of the members of the council must be physicians.

Term of office and compensation.—The four members of the council serve for a term of four years. The term of one member expires each year. They receive a salary of \$10 per diem while in session and their traveling expenses.

Meetings.—Meetings of the council are held quarterly; special meetings may be called at any time by the director of health or any three members.

EXECUTIVE OFFICER

Legal qualifications.—The director of health, who is chairman of the council, must be a physician skilled in sanitary science. He is appointed by the governor from outside the membership of the council.

Term of office and salary.—The director of health serves during the pleasure of the governor and receives a salary of \$6,500 and necessary traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The executive authority of the health department is vested in the director of health; the duties and powers of the public health council are legislative and judicial. The State department of health has judicial power with regard to the pollution of streams, the disposal of sewage, and on appeals from the orders or actions of the director. It has the

Ohio - Organization of the State Department of Health in 1930

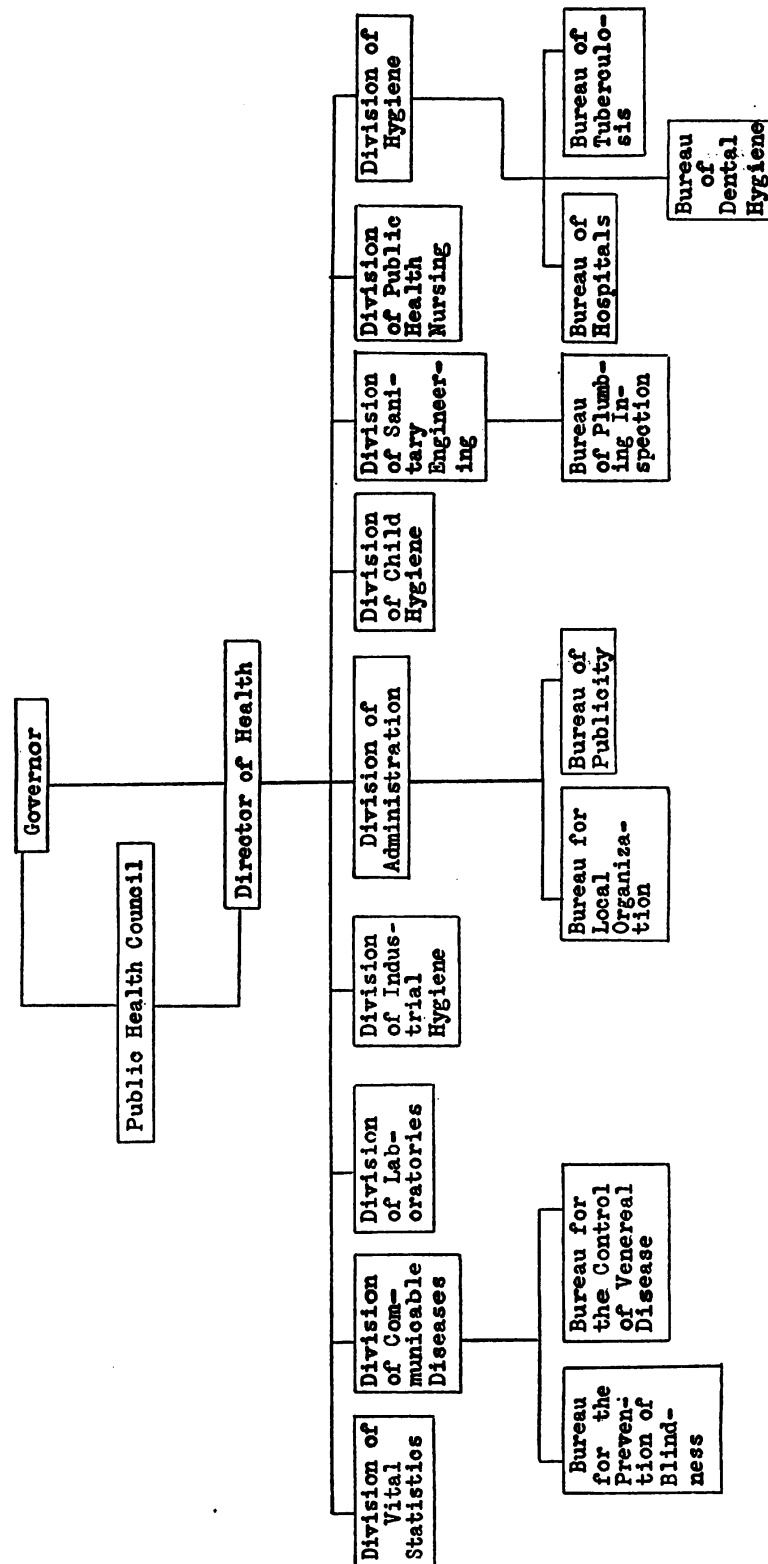


FIGURE 53

authority to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, communicable diseases, and quarantine. These regulations are denominated the "Ohio Sanitary Code." Nuisances are under the control of the local boards of health. The enforcement of laws relating to milk supplies and food adulteration are functions of the department of agriculture. Matters pertaining to violations of the medical practice law, nurse registration, and supervision of midwifery are activities of the State medical board. Hotels and restaurants are licensed by the State fire marshal.

APPROPRIATIONS

The State legislature makes a biennial appropriation to the State department of health which allots it to the various divisions. The legislature meets in January of odd years. The fiscal year of the health department ends on December 31.

TABLE 194.—*Divisions and bureaus of the State department of health in 1930*¹

OHIO

Division and bureau	Total budgets by divisions and bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$112,682	9	\$6,500	\$24,700	\$31,200
Bureau of local organization.....	(²)	2	3,300	1,320	4,620
Bureau of publicity.....	(²)	1	3,000	-----	3,000
Division of communicable diseases.....	44,100	7	4,300	20,140	24,440
Bureau for the prevention of blindness.....	(³)	1	3,200	-----	3,200
Bureau for the control of venereal disease.....	14,000	2	3,200	1,260	4,460
Division of hygiene.....	19,780	3	4,300	3,240	7,540
Bureau of hospitals.....	(⁴)	2	3,000	1,200	4,200
Bureau of dental hygiene.....	(⁴)	1	3,600	-----	3,600
Bureau of tuberculosis.....	7,000	1	3,600	-----	3,600
Division of vital statistics.....	35,140	26	4,000	29,640	33,640
Division of laboratories.....	71,100	38	4,000	59,100	63,100
Division of sanitary engineering.....	66,940	16	5,000	44,340	49,340
Bureau of plumbing inspection.....	(⁵)	4	2,600	5,000	7,600
Division of child hygiene.....	16,500	6	4,000	9,500	13,500
Division of public health nursing.....	25,820	9	3,300	14,520	17,820
Division of industrial hygiene.....	6,400	3	3,300	3,200	6,500
Appropriation for local health districts.....	250,000	-----	-----	-----	-----

¹ Total appropriation, \$652,823; total appropriation exclusive of tuberculosis sanatoria funds, \$652,823; State legislative appropriation, \$652,823.

² Included under division of administration.

³ Included under division of communicable diseases.

⁴ Included under division of hygiene.

⁵ Included under division of sanitary engineering.

DIVISION OF ADMINISTRATION

Personnel.—The personnel of the division of administration consisted in 1930 of the director of health, the assistant director as chief of the division, a secretary, a financial clerk, and five clerks.

Civil service.—The employees of the State department of health are under civil service with the exception of the director, the assistant director, and three assistants. A change in State administration

does not affect the tenure of personnel in the department except those in the unclassified service.

Disbursement of funds.—Funds are disbursed on voucher to the department of finance and the State auditor and warrants issued on the State treasurer.

Purchases.—Supplies are purchased through the division of purchases and printing in the department of finance.

BUREAU OF LOCAL ORGANIZATION

Personnel.—The chief of the bureau of local health organization carries on the work of the bureau. In 1930, he was assisted by a clerk.

Local health administration.—Local health districts are organized according to the Hughes-Griswold health law passed in 1919. The State is divided into health districts; each city constitutes a city health district and each county constitutes a general health district exclusive of any city therein. There may be a union of two general health districts or a union of a general health district and a city health district located within such district. In each district there is a district board of health consisting of five members, except in cities where the city charter provides for some other form of organization. At the close of 1930 there were 45 full-time and 41 part-time county organizations. In addition there were 92 city organizations, 33 of which were full-time departments.

Supervision.—The State department of health acts in a supervisory and advisory capacity toward the local health organizations. The State department of health may make and enforce orders in local health matters when an emergency exists, when a local board of health has neglected to act with sufficient promptness or efficiency, or when such a board has not been established as provided by law. In such cases the necessary expense incurred must be paid by the city, village, or township for which the services are rendered.

Special appropriations.—A special appropriation of \$250,000 to be used as a subsidy for local health districts is provided by the State legislature. In 1929, 170 city and county health districts received subsidies.

TABLE 195.—Data on full-time counties operating throughout 1929

OHIO

County	Organized	1929 population ¹	Total budget	Per capita tax	Assessed valuation of property, 1922 ¹	Mill tax	1929 population of cities over 5,000 population on Jan. 1, 1930	Number of whole-time personnel					
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks	Others
Columbiana	1920	39,097	\$9,350	\$0.24	\$62,646,740	\$0.0001	East Liverpool (23,139). East Palestine (5,269). Salem (10,593). Wellsville (8,048).	1	---	---	2	1	---
Hocking	1920	14,675	6,805	.46	30,781,710	.0002	Logan (6,024).	1	---	---	1	1	---
Sandusky	1920	26,144	8,200	.31	57,683,570	.0001	Freemont (13,323).	1	---	---	2	1	---
Shelby	1920	15,794	7,800	.49	38,988,370	.0002	Sidney (9,229).	1	1	---	1	---	---
Trumbull	1920	53,974	16,645	.31	127,277,640	.0001	Girard (9,526). Niles (15,987). Warren (39,659).	1	---	---	4	1	---
Ashtabula	1920	35,245	25,500	.72	77,701,920	.0003	Ashtabula (23,180). Conneaut (9,658).	1	---	---	4	1	---
Allen	1920	21,431	11,600	.54	59,590,250	.0002	Delphos (5,682). Lima (42,190).	1	---	---	2	1	1
Erie	1920	17,446	10,000	.57	47,378,760	.0002	Sandusky (24,449).	1	---	1	2	---	---
Hamilton	1920	74,896	35,000	.33	72,914,480	.0005	Cheviot (7,654). Cincinnati (446,166). Lockland (5,537). Norwood (32,566). Reading (5,602). St. Bernard (7,369). Akron (250,379). Baberton (23,419). Cuyahoga Falls (18,840).	1	---	---	5	6	2
Summit	1920	45,690	28,827	.63	112,033,040	.0003	Berley (6,787). Columbus (285,206). Campbell (14,333). Struthers (10,707). Youngstown (166,234).	1	---	1	5	2	---
Franklin	1920	61,346	19,883	.32	112,840,500	.0002	Chillicothe (18,090). Hamilton (50,925). Middletown (29,354). New Boston (5,816). Portsmouth (41,615). Alliance (22,899). Canton (103,124). Massillon (25,501). Bowling Green (6,598). Dayton (196,137). Miami (5,404). Oakwood (5,991). Elyria (25,118). Lorain (43,793).	1	---	---	1	6	3
Mahoning	1920	39,883	28,000	.70	97,729,990	.0003	Piqua (15,912). Troy (8,533). Wooster (10,490). Marietta (14,371). Bedford (6,403). Berea (5,425). Cleveland (890,072). Cleveland Heights (47,375). East Cleveland (38,429). Euclid (11,814). Garfield Heights (14,286). Lakewood (67,644). Maple Heights (5,530). Parma (13,899). Rocky River (5,254). Shaker Heights (16,169).	1	---	2	4	1	---
Ross	1920	26,728	7,720	.29	39,737,650	.0002	Chillicothe (18,090).	1	---	---	1	1	1
Butler	1920	31,100	12,669	.41	60,858,050	.0002	Hamilton (50,925).	1	---	1	2	1	---
Scioto	1920	31,952	9,900	.31	34,634,420	.0003	Middletown (29,354).	1	---	---	2	1	---
Stark	1920	65,807	30,000	.46	116,899,590	.0003	New Boston (5,816).	1	---	---	4	5	2
Wood	1920	43,181	8,370	.19	89,763,310	.0001	Portsmouth (41,615).	1	---	---	1	1	1
Montgomery	1920	59,555	23,140	.39	88,572,950	.0003	Alliance (22,899). Canton (103,124). Massillon (25,501). Bowling Green (6,598). Dayton (196,137). Miami (5,404). Oakwood (5,991). Elyria (25,118). Lorain (43,793).	1	---	1	4	1	---
Lorain	1920	38,432	22,000	.57	75,924,470	.0003	Piqua (15,912).	1	---	1	3	1	1
Miami	1920	26,566	12,745	.48	53,294,490	.0002	Troy (8,533).	1	---	---	1	3	1
Wayne	1920	35,968	17,350	.48	76,400,280	.0002	Wooster (10,490).	1	---	---	1	3	1
Washington	1920	28,129	11,247	.40	35,839,840	.0003	Marietta (14,371).	1	---	---	1	1	---
Cuyahoga	1920	53,359	45,151	.85	335,674,420	.0001	Bedford (6,403). Berea (5,425). Cleveland (890,072). Cleveland Heights (47,375). East Cleveland (38,429). Euclid (11,814). Garfield Heights (14,286). Lakewood (67,644). Maple Heights (5,530). Parma (13,899). Rocky River (5,254). Shaker Heights (16,169).	1	---	1	8	1	1
Belmont	1921	66,826	15,800	.24	76,299,490	.0002	Bellaire (13,504).	1	---	1	3	2	---
Crawford	1921	17,706	10,555	.60	50,069,490	.0002	Martins Ferry (14,235).	1	---	---	1	---	---
Delaware	1921	17,331	8,040	.46	38,741,200	.0002	Bucyrus (10,065). Galion (7,644). Delaware (8,684).	1	---	---	1	1	---

¹ Only that supported by the budget¹ Cities not included.

TABLE 195—Data on full-time counties operating throughout 1929—Continued

OHIO—Continued

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 5,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks
Lake.....	1921	29,801	\$16,502	\$0.55	\$70,818,850	\$0.0002	Painesville (10,575).....	1	1	2	1	1
Meigs.....	1921	24,182	2,450	.10	22,409,250	.0001	.....	1	1	1	1	1
Seneca.....	1921	18,737	8,290	.44	54,577,430	.0002	Fostoria (12,507).....	1	1	1	1	1
Marion.....	1921	14,320	11,278	.79	44,027,950	.0003	Tiffin (16,220).....	1	1	1	1	1
Lucas.....	1921	54,553	16,550	.30	66,165,600	.0003	Marion (30,762).....	1	1	1	1	1
Clinton.....	1921	16,393	8,900	.54	43,384,670	.0002	Toledo (285,959).....	1	1	1	1	1
Coshocton.....	1921	18,136	4,800	.26	29,997,970	.0002	Wilmington (5,302).....	1	1	1	1	1
Morrow.....	1921	14,598	6,000	.41	30,691,860	.0002	Coshocton (10,901).....	1	1	1	1	1
Tuscarawas.....	1921	39,538	7,050	.18	66,885,690	.0001	.....	1	1	1	1	1
Huron.....	1922	13,947	12,000	.86	48,805,185	.0002	Dover (9,554).....	1	1	1	1	1
Perry.....	1922	31,913	10,450	.33	40,394,460	.0003	New Philadelphia (12,203).....	1	1	1	1	1
Geauga.....	1923	15,378	11,000	.72	26,030,225	.0004	Uhrichsville (6,436).....	1	1	1	1	1
Hancock.....	1924	21,076	4,250	.20	55,855,930	.0001	Bellevue (6,208).....	1	1	1	1	1
Richland.....	1924	25,736	7,499	.29	55,395,270	.0001	Norwalk (7,739).....	1	1	1	1	1
Mercer.....	1924	25,270	6,500	.26	53,055,010	.0001	Findlay (19,127).....	1	1	1	1	1
Fayette.....	1924	12,458	8,000	.64	36,262,990	.0002	Mansfield (32,954).....	1	1	1	1	1
Jefferson.....	1924	40,717	10,200	.25	63,031,670	.0002	Shelby (6,136).....	1	1	1	1	1
Darke.....	1925	31,460	11,735	.37	82,895,000	.0001	Washington Court House (8,376).....	1	1	1	1	1
Preble.....	1925	22,536	8,930	.40	47,503,000	.0002	Mingo Junction (4,985).....	1	1	1	1	1
Total.....		1,458,910	614,68	1.42	3,008,484,630	.0002	Staubenville (34,727).....	46	126	97	43	4
							Toronto (6,808).....					
							Greenville (7,041).....					

BUREAU OF PUBLICITY

Personnel.—During 1930 the work of the bureau of publicity was carried on by a chief who was unassisted.

Bulletins.—A semimonthly bulletin is issued and special pamphlets are published from time to time.

Press service.—The Associated Press, United Press, International News Service, and Western Newspaper Union receive articles from the State department of health from time to time.

Equipment.—The State department of health has now discarded its stereopticon and slides, but owns and operates three motion-picture machines with 30 films, and a health automobile with a large portable exhibit.

Cooperation.—A textbook in hygiene for schools was written by the State department of health and published by the State department of education in 1925.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—The staff of the division of communicable diseases consisted in 1930 of a chief, four medical inspectors, a statistician, three clerks, and a stenographer.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by the local health commissioners.

Quarantine.—Quarantine measures are under the control of the local health commissioners.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children except by order of the board of education.

Emergency fund.—The State legislature makes an appropriation to the State emergency board. In this way a fund is available for the emergency expenses incurred by the State department of health in cases of epidemics or outbreaks, and for public-health purposes in general.

BUREAU FOR THE CONTROL OF VENEREAL DISEASE

Personnel.—In 1930 the work of the bureau for the control of venereal disease was carried on by the chief of the division of communicable diseases with the assistance of other personnel.

Clinics.—Thirty-nine clinics for the treatment of venereal disease were held under the supervision of the State department of health in 1929.

Treatments.—Arsphenamine treatments are furnished to indigent patients throughout the State. A total of 255,833 treatments was given in 1929; of these 49,701 were arsenicals. The department of health furnishes arsenicals free to clinics and to physicians for indigent persons where no clinics have been established. Clinics may charge for treatments but not for arsenicals.

BUREAU FOR THE PREVENTION OF BLINDNESS

Personnel.—In 1930, the work of the bureau for the prevention of blindness was supervised by the chief of the division of communicable diseases.

Activities.—The function of this bureau is to provide necessary medical and nursing services, for cases of ophthalmia neonatorum and to investigate and supervise the treatment of these cases. Special attention is also given to the treatment of cases of trachoma. The bureau cooperates with the commission for the blind in the work of preventing blindness.

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DIVISION OF HYGIENE

Personnel.—In 1930 the chief of the division of hygiene was assisted by a stenographer and a clerk.

Activities.—The division of hygiene is composed of the bureau of tuberculosis, the bureau of hospitals, and the bureau of dental hygiene.

BUREAU OF TUBERCULOSIS

Personnel.—In 1930 the work of the bureau of tuberculosis was carried on by a chief who was unassisted.

Activities.—The State department of health supervises tuberculosis hospitals and diagnostic clinics and approves locations, plans, and estimates of cost for new hospitals. Clinics are held in cities and counties upon the request of the local health commissioner and medical association. During 1929, nine clinics were held under the supervision of the State health department and 668 patients were examined. In addition, 22 clinics were conducted by local health organizations.

Sanatoria.—One State sanatorium with a capacity of 236 beds is conducted under the auspices of the department of public welfare. There are also 3 district and 9 county sanatoria with a total capacity of 1,579 beds. The city of Cleveland maintains a sanatorium with 398 beds, and there is 1 private tuberculosis hospital with 120 beds.

BUREAU OF HOSPITALS

Personnel.—The staff of the bureau of hospitals included in 1930 a chief and a nurse detailed for maternity hospital inspection.

Activities.—The Ohio statutes require that all hospitals and dispensaries be registered by the State department of health and that all maternity hospitals and general hospitals having special provisions for maternity service be licensed by and subject to inspection by the department.

BUREAU OF DENTAL HYGIENE

Personnel.—In 1930 the work of the bureau of dental hygiene was carried on by the chief who was unassisted.

Activities.—This bureau was organized in December, 1929. It cooperates with the State and local dental societies, boards of education, boards of health, and voluntary agencies in carrying out a program of education on the necessity of proper dental work.

DIVISION OF VITAL STATISTICS

The division of vital statistics was established in 1908 under the direction of the secretary of state. In 1921 it became a division of the State department of health.

Personnel.—In 1930 the chief of the division of vital statistics was assisted by a statistician-editor and a staff of 24 clerks, stenographers, typists, and copyists.

Registration districts.—The cities, townships, and villages comprise the primary registration districts of the State.

Local registrars.—The local registrars are elected in the townships and villages and are appointed by the board of health in cities. Except in cities where there is a sliding scale of fees, the local registrars receive a fee of 25 cents for each complete record. Fees are paid by the county.

Registration area.—Ohio was admitted to the registration area for deaths in 1911 and to the registration area for births in 1917.

Reporting of deaths.—In 1929, 99 per cent of the deaths occurring in the State were reported; of these, 98.5 per cent were reported by undertakers and 1.5 per cent by others. Deaths certificates must be filed with the local registrar and a burial or removal permit issued before the body may be removed from the registration district. All certificates must be sent to the State registrar by the 10th of the month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 93 per cent of the births occurring in the State were reported; of these, 98 per cent, were reported by physicians, 1.8 per cent by midwives, and 0.2 per cent by others. Births must be reported to the local registrars within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The division of vital statistics supplies the blanks for recording the returns. The postage is franked by the Federal Government.

Burial permits.—Burial permits are issued by the local registrars.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner is notified and furnishes the information required by the State registrar.

Licensing.—Physicians and midwives are licensed by the State medical board. Embalmers are licensed by the State board of embalming examiners. Undertakers are not licensed.

DIVISION OF LABORATORIES

Personnel.—The personnel of the division of laboratories consisted in 1930 of a chief, 18 chemists and bacteriologists, 6 technicians, 5 stenographers, 6 laboratory helpers, a watchman, and a janitor animal-caretaker.

Branch laboratories.—No branch laboratories have been established as yet.

Private laboratories.—The State department of health has no supervision over private laboratories, except those with which local health departments contract for services.

Location of central laboratory.—The State laboratory is located on the campus of the Ohio State University, but is maintained and conducted by the State department of health and has no official connection with the University.

Special laboratories.—No laboratories other than the central laboratory have been established by the State department of health. Foods, drugs, stock foods, fertilizers, and other agricultural products are examined in the central laboratory. Other State departments also make use to a limited degree of the services offered by the laboratory.

Activities.—During 1929, 122,263 specimens were examined in the laboratory. The greater number of examinations made were Wassermann blood tests, Kahn tests, examinations of diphtheria cultures, of tuberculosis sputa, and water analyses. A tabulation of the specimens examined by the laboratory in 1929 is given on pages 98 to 100.

Fees.—No fee is charged for any service performed by the laboratory

Biological products.—Typhoid vaccine and silver-nitrate ampules are the only biological products prepared by the laboratory and distributed free of charge. The State department contracts with the lowest bidder to supply diphtheria antitoxin, smallpox vaccine, tetanus antitoxin, and other biologic products to the local health departments at a specified price which is uniform throughout the State. The State is not responsible for payment. The local departments distribute these products free and must purchase all supplies within their local budgets. Rabies treatments are purchased by the local departments or by private physicians from biological houses and payment is made as a separate item by the county commissioners. All materials are distributed under the supervision of the division of communicable diseases. The amounts distributed during 1929 are recorded for typhoid vaccine and silver-nitrate ampules on page 103.

DIVISION OF SANITARY ENGINEERING

Personnel.—The staff of the division of sanitary engineering consisted in 1930 of a chief, 10 assistant engineers, a sanitary inspector, and 4 stenographers.

Public water supplies and sewage-disposal systems.—Plans for proposed water-supply systems or systems for the disposal of sewage or industrial wastes must be submitted to the State department of health for approval.

Analysis of waters from surface sources.—Public water supplies taken from surface sources and subjected to purification are tested

daily and the results are submitted to the State department each month. No schedule for testing by the State is maintained, but some supplies may be tested several times each year and others only once a year.

Analysis of waters from uncertain well sources.—Public water supplies derived from uncertain well sources and subjected to chlorination are tested daily by local analysis and twice monthly by competent technical supervisors. The results are reported to the division of sanitary engineering on regular forms each month.

Analysis of waters from satisfactory sources.—Public water supplies derived from satisfactory well sources are tested occasionally by the State from samples collected by the local health commissioners and representatives of the division of sanitary engineering. The frequency of the tests varies from once a month to once a year.

Inspection.—Water-purification plants are inspected as often as may be required by local conditions. It is the aim of the division to visit each plant at least once a year and such plants as have difficulties, three or four times a year, or oftener if necessary.

Bottled waters.—A license from the State department of agriculture is required for the bottling of mineral waters.

Ice industry.—The sale or use of ice for domestic purposes may be prohibited by the State department of health if the ice is unfit for use. No natural ice can be cut within a sanitary district until a permit has been issued by the local boards of health.

Camps and roadside water supplies.—Water supplies and sewerage facilities for tourist camps, summer camps, and roadside water supplies are under the jurisdiction of the State department of health.

Swimming pools.—Regulations giving jurisdiction over the control and operation of swimming pools to the State department of health are under consideration and will be presented to the next general assembly.

BUREAU OF PLUMBING INSPECTION

Personnel.—In 1930, the work of the bureau of plumbing inspection was carried on by a chief, two plumbing inspectors and a clerk. This personnel is not included in the staff of the division of sanitary engineering.

Activities.—All plans for plumbing and drainage in public and quasi-public buildings and in buildings used for the assemblage or employment of persons must be submitted to and approved by the department of health.

DIVISION OF CHILD HYGIENE

Personnel.—In 1930 the chief of the division of child hygiene was assisted by a lecturer, two assistants for operating the motion-picture machines and other services, a clerk, and a stenographer.

Prenatal clinics.—No prenatal clinics are conducted by this division.

Midwifery.—The State department of health gives no instruction or supervision to midwives.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported to the local health officer within 6 hours. The use of some prophylactic against inflammation of the eyes of the new born is required.

Lying-in hospitals and orphanages.—One hundred and eighty-four lying-in hospitals are licensed by the State department of health. Orphanages are licensed by the State department of public welfare.

Infant and preschool hygiene.—During 1929, 213 preschool conferences were conducted by the State department of health and 12,270 children were examined. These conferences combined with health-education work including motion pictures and health exhibits form the most important activities of the division.

School hygiene.—School-hygiene activities are carried on by the local boards of education or health.

DIVISION OF PUBLIC-HEALTH NURSING

Personnel.—The staff of the division of public-health nursing consisted in 1930 of a chief, seven nurses, and a stenographer.

Activities.—The State public-health nurses act in an advisory capacity in the organization and establishment of public-health work along general lines. They investigate specialized activities in the field, visit local organizations for the purpose of rendering assistance and giving advice in various phases in public-health problems, aid in organizing and operating public-health clinics, and assist in child-hygiene and school-hygiene work. The State has been divided into seven districts, each of which has an instruction nurse.

Eligibility requirements.—A State public-health nurse must be a graduate of a legally recognized school of nursing, must be registered in the State, and must have completed a course in public-health nursing or have had eight months of public-health nursing experience under supervision.

Number of nurses.—In 1929 there were three supervising nurses, two orthopedic nurses, two tuberculosis nurses, and four infant welfare nurses employed by the State department of health.

DIVISION OF INDUSTRIAL HYGIENE

Personnel.—In 1930 the staff of the division of industrial hygiene consisted of a chief, a consultant, and a stenographer. The division of industrial hygiene was created after a general survey of the industries of the State had been made by an act of the legislature in 1913. The purpose of the survey was to determine the influence of employment upon the health of persons engaged in industry.

Activities.—The division is legally charged with the enforcement of the occupational disease reporting law, which was passed in 1913 and amended in 1920 to provide a penalty for failure of physicians to comply with the law. Since July 1, 1925, a check-up system has been established with the department of industrial relations whereby reports of occupational diseases are apprehended upon the filing of claims for compensation. The State department of health under the reporting law is required to transmit copies of all reports received to the division of safety and hygiene in the department of industrial relations.

Inspection in lead plants.—The State department of health carries on an inspection service in lead plants operating under the so-called lead law. The aim is to educate employees in the methods of prevention of lead poisoning. The State department of health may also, after a hearing, determine whether or not any particular trade, process of manufacture, or occupation not already specified, in which minors are employed is sufficiently injurious to the lives, health, or morals of the employees to justify exclusion of minors from this occupation.

TABLE 196.—Total budget, State legislative budget for health work, and budgets by divisions, by years

OHIO

Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$122,685	\$129,508	\$128,233	¹ \$179,837	¹ \$214,307	¹ \$456,043
State legislative budget.....	120,810	128,007	128,005	128,005	198,140	401,233
Division of vital statistics.....	27,871	17,413	26,269	28,256	28,653	30,404
Bureau for the control of venereal disease.....					¹ 51,832	¹ 66,750
Full-time counties.....						² 211,837
Bureau of tuberculosis.....						
Division of child hygiene.....						
Division of administration.....						
Division of communicable diseases.....						
Division of hygiene.....						
Division of laboratories.....						
Division of sanitary engineering.....						
Division of public health nursing.....						
Division of industrial hygiene.....						

Division	1921	1922	1923	1924	1925
Total budget.....	¹ \$420,345	¹ \$443,295	¹ \$555,871	¹ \$599,393	¹ \$600,961
State legislative budget.....	396,610	412,058	530,110	575,317	573,713
Division of vital statistics.....	33,410	32,640	34,529	39,546	39,620
Bureau for the control of venereal disease.....	¹ 55,280	¹ 32,307	¹ 27,827	¹ 22,740	¹ 22,408
Full-time counties.....	² 480,043	² 510,449	² 520,155	² 477,732	² 518,695
Bureau of tuberculosis.....		7,998	11,335	8,899	10,540
Division of child hygiene.....			² 20,408	² 43,344	² 80,327
Division of administration.....				41,223	40,310
Division of communicable diseases.....				29,924	36,513
Division of hygiene.....				10,900	19,967
Division of laboratories.....				50,444	40,946
Division of sanitary engineering.....			20,408	43,344	80,327
Division of public health nursing.....				11,500	15,238
Division of industrial hygiene.....				5,680	6,563

¹ U. S. Public Health Service funds included. (See Table 197.)

² Local funds included. (See Table 197.)

³ U. S. Children's Bureau funds included. (See Table 197.)

TABLE 196.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

OHIO—Continued

Division	1926	1927	1928	1929	1930
Total budget.....	\$595,470	\$605,193	\$609,096	\$638,730	\$652,823
State legislative budget.....	568,768	577,193	578,168	638,730	652,823
Division of vital statistics.....	39,000	41,235	41,088	43,022	35,140
Bureau for the control of venereal disease.....	12,742	10,620	14,000	21,000	14,000
Full-time counties.....	\$ 520,360	\$ 530,242	\$ 544,291	\$ 558,662	\$ 654,670
Bureau of tuberculosis.....	7,000	7,875	9,654	8,000	7,000
Division of child hygiene.....	\$ 54,769	\$ 61,308	\$ 56,003	33,243	16,500
Division of administration.....	43,048	45,464	46,324	49,735	112,682
Division of communicable diseases.....	31,871	34,461	39,840	34,677	44,100
Division of hygiene.....	19,399	12,993	13,927	25,118	19,780
Division of laboratories.....	54,814	61,564	62,398	77,002	71,100
Division of sanitary engineering.....	54,670	55,000	53,139	61,602	66,940
Division of public health nursing.....	16,871	17,948	13,117	21,078	25,820
Division of industrial hygiene.....	6,500	6,032	6,277	6,983	6,400

* Local funds included. (See Table 197.)

* U. S. Children's Bureau funds included. (See Table 197.)

TABLE 197.—*Total appropriations for State department of health, by years*

OHIO

Year	Total appropriation	Source of funds and amounts				
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Emergency board	Central board
1915.....	\$122,685	\$120,810	-----	-----	\$1,875	-----
1916.....	129,507	128,007	-----	-----	1,500	-----
1917.....	128,232	128,005	-----	-----	227	-----
1918.....	179,837	128,005	\$51,832	-----	-----	-----
1919.....	214,307	198,140	12,920	-----	1,750	\$1,497
1920.....	456,043	401,233	33,131	-----	8,318	13,360
1921.....	420,345	396,610	4,805	-----	16,930	2,000
1922.....	443,295	412,058	17,806	-----	13,430	-----
1923.....	555,870	530,110	761	\$16,950	4,450	3,600
1924.....	599,393	575,317	6,789	11,871	1,820	3,596
1925.....	600,961	573,713	654	26,594	-----	-----
1926.....	595,470	568,768	-----	26,702	-----	-----
1927.....	605,193	577,193	-----	28,000	-----	-----
1928.....	609,096	578,168	-----	30,928	-----	-----
1929.....	638,730	638,730	-----	-----	-----	-----
1930.....	652,823	652,823	-----	-----	-----	-----

OKLAHOMA

EXECUTIVE OFFICER

Organization.—There is no State board of health as such in Oklahoma. The commissioner of health, who is appointed by the governor, has supervision of all matters relating to public health. He must be a graduate of a recognized school and a licensed physician.

Term of office and compensation.—The commissioner is chosen to serve for a term of four years. He receives a salary of \$4,800 and his traveling expenses.

POWERS OF THE COMMISSIONER OF HEALTH

Judicial, legislative, and executive powers.—The State commissioner of health has no judicial power, but in a general way such power is

Oklahoma - Organization of the State Department of Health in 1930

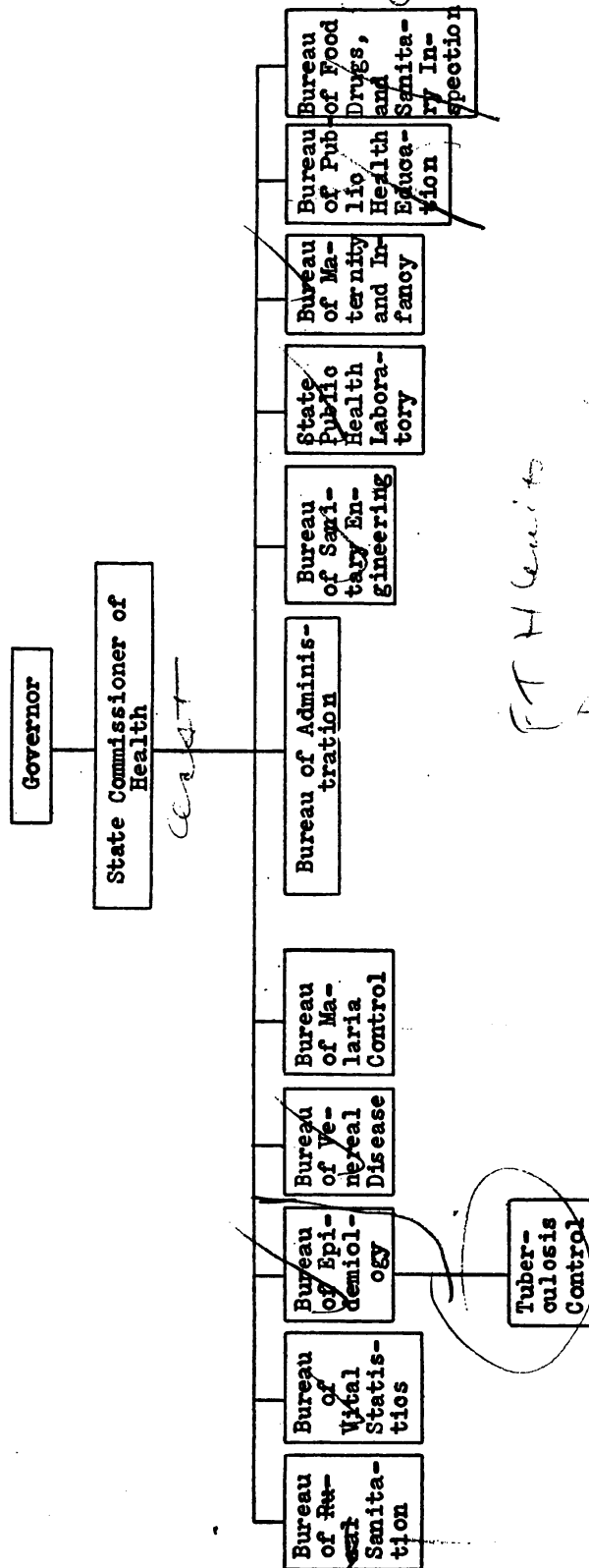


FIGURE 54

exercised in controversies. He has the power to make and enforce rules and regulations concerning the prevention and cure of communicable diseases, quarantine, nuisances, sanitation in general, water pollution, sewage disposal, and food adulteration. The board of agriculture enforces the milk laws with the cooperation of the health department. The commissioner has no authority concerning midwifery, and the enforcement of the medical practice law is a responsibility of the State board of medical examiners.

APPROPRIATIONS

The State legislature makes an appropriation every two years to the bureaus of the State department of health. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 198.—*Bureaus of the State department of health in 1930*¹

Bureaus	Total budgets, by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$59,050	7	\$4,800	\$10,700	\$15,500
Bureau of rural sanitation.....	35,000	34	4,600	30,400	35,000
Bureau of epidemiology.....	5,000	2	3,600	1,200	4,800
Bureau of venereal disease.....	10,800	4	3,000	3,000	6,000
Bureau of malaria control.....	10,000	2	(²)	3,600	3,600
Bureau of vital statistics.....	8,700	5	2,400	6,300	8,700
State public-health laboratory.....	17,200	9	3,000	13,300	16,300
Bureau of sanitary engineering.....	3,000	1	3,000	-----	3,000
Bureau of maternity and infancy.....	31,100	9	3,000	16,100	19,100
Bureau of public-health education.....	3,900	2	2,400	1,500	3,900
Bureau of pure food, drugs, and sanitary inspection..	13,200	7	2,400	10,800	13,200

¹ Total appropriation, \$205,850; total appropriation exclusive of tuberculosis sanatoria, \$205,850; State legislative appropriation, \$196,950.

² Officials included whose time is devoted to more than 1 activity.

³ Director of bureau of epidemiology is in charge.

BUREAU OF ADMINISTRATION

Personnel.—The personnel of the central office consisted in 1930 of the commissioner of health, the assistant commissioner, an accountant, a chief, and three clerks.

Civil service.—The employees of the State department of health are not under civil service. A change in State administration affects the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed through the State treasurer, after approval of the State auditor.

Purchases.—Supplies are purchased through the State board of public affairs.

BUREAU OF RURAL SANITATION

Personnel.—The personnel of the division of rural sanitation in 1930 consisted of a director and a secretary in the central office and 32 additional personnel in the full-time county health organizations.

Funds.—Prior to 1925 the funds used for rural sanitation were expended as funds for the control of epidemics. No specific appropriation was made until July 1, 1925, when the legislature set aside a definite sum of money of which not more than \$2,500 per county was to be used for work in rural communities, conducted along approved and scientific lines. The amount of the special appropriation in 1930 was \$30,000.

Local organizations.—A permissive full-time county health law was passed by the 1929 legislature. At the close of 1930 there were nine full-time county health organizations in operation. In addition to the full-time units, there are municipal and part-time health organizations.

Supervision.—The commissioner appoints the county health officer and exercises supervisory and advisory authority over each local health organization.

TABLE 199.—Data on full-time counties operating throughout 1929

OKLAHOMA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel			
								Health officers	Inspectors	Nurses	Clerks
Ottawa.....	1919	38,795	\$10,400	\$0.27	\$17,132,000	\$0.0006		1	1		
Carter.....	1924	41,300	7,500	.18	35,499,000	.0002	Ardmore (15,585)	1		1	1
Le Flore.....	1924	42,882	10,000	.23	17,733,000	.0006		1	1	1	1
Muskogee.....	1924	65,949	11,100	.17	53,026,000	.0002	Muskogee (31,852)	1	1	1	1
Pittsburg.....	1924	50,959	10,000	.20	29,261,000	.0003	McAlester (11,834)	1		2	1
Okmulgee.....	1925	56,413	10,125	.18	45,501,000	.0002	Okmulgee (17,133)	1		2	1
McCurtain.....	1925	35,070	10,000	.29	12,241,000	.0008		1	1	1	1
Seminole.....	1927	74,037	11,370	.15	7,679,000	.0015	Seminole (10,389) Wewoka (9,512)	1	1	1	1
Osage.....	1928	46,256	11,737	.25	44,429,000	.0003		1	1	2	1
Total.....		451,661	92,232	.20	262,501,000	.0004		9	6	11	8

BUREAU OF EPIDEMIOLOGY

Personnel.—In 1930 the personnel of the bureau of epidemiology consisted of an epidemiologist and a secretary.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by the county health officers.

Quarantine.—Quarantine measures are under the control of the county health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—There is a general fund which may be used in times of epidemic, with the approval of the governor.

Tuberculosis clinics.—In 1929 the health department conducted 15 tuberculosis clinics at two stations with a total of 60 patients. The United States Bureau of Mines maintained a daily clinic at Picher, Okla. Several of the county units occasionally hold clinics.

Tuberculosis sanatoria.—Two tuberculosis sanatoria with a total capacity of 400 beds are maintained by the State department of health. The appropriation for the maintenance of the department is made through the State department of health but is not included in the total appropriation for that department. These sanatoria are conducted by resident directors under the supervision of the State health commissioner.

BUREAU OF VENEREAL DISEASES

Personnel.—The staff of the bureau of venereal disease in 1930 consisted of a director and an assistant who are part-time officials, a file clerk, and a welfare worker.

Clinic.—The State department of health stimulates reporting by physicians and urges treatment until cured. There is one clinic under the supervision of the State department of health.

Treatments.—During 1929, 42,200 free treatments, 38,200 of which were salvarsan, were administered.

BUREAU OF MALARIA CONTROL

Personnel.—The director of the bureau of epidemiology is in charge of the malaria-control work. In 1930, he was assisted by two field men.

Activities.—The activities of this bureau consist of oiling, screening, lectures with motion pictures, and the distribution of free quinine.

BUREAU OF VITAL STATISTICS

Personnel.—In 1930 the personnel of the bureau of vital statistics consisted of the State registrar, an assistant director, and three full-time clerks.

Registration districts.—Each city, incorporated town, and township is a primary registration district of the State.

Local registrars.—The local registrars are chosen by the State health commissioner. They receive a fee from the county commissioners of 25 cents for each certificate and \$2 for each monthly report issued.

Registration area.—Oklahoma was admitted to the registration area for deaths and for births in 1928.

Reporting of deaths.—The reporting of deaths in 1929 was estimated as being 94 per cent complete; 65 per cent were reported by physicians, 25 per cent by undertakers, and 10 per cent by others. Deaths

must be reported to the local registrar before burial and to the State registrar by the 10th of the month.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in this State.

Reporting of births.—The reporting of births in 1929 was estimated as being 94 per cent complete; 95 per cent were reported by physicians, 3 per cent by midwives, and 2 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—Postage and blanks for recording the returns are supplied by the State registrar.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners and undertakers by the State board of embalmers. Midwives are not licensed.

STATE PUBLIC-HEALTH LABORATORY

Personnel.—The personnel of the State public-health laboratory in 1930 consisted of a director, four technicians, two stenographers, a janitor, and a shipping clerk.

Branch and private laboratories.—No branch laboratories have been established, and the State department of health has no supervision over private laboratories.

Special laboratories.—No laboratories other than the State public-health laboratory have been established.

Activities.—During 1929, 31,105 examinations were made by the laboratory. The examinations were mainly Wassermann tests, gonococcus smears, water analyses, and tuberculosis-sputa examinations. A summary of the diagnostic activities of the laboratory is given on pages 98–100.

Fees.—There is no charge for any examination made by this laboratory; only such tests as have a direct bearing on public health are attempted.

Biological products.—Biological products are issued by the State laboratory. Typhoid vaccine and silver-nitrate ampules are manufactured for distribution. Smallpox vaccine, typhoid vaccine, and silver-nitrate ampules are issued free of charge. A detailed analysis of the biological products distributed during 1929 is given on page 103.

BUREAU OF SANITARY ENGINEERING

Personnel.—In 1930 the State sanitary engineer carried on the work of the bureau of sanitary engineering.

Public water supplies and sewerage systems.—Plans for public water supplies and sewage-disposal systems must be filed with the State department of health for approval, and no further addition, alteration, or extension can thereafter be made in such systems without a written permit from the State department of health.

Analysis.—Public water supplies are analyzed monthly.

Inspection.—Water-purification plants are inspected at no stated intervals.

Bottled waters.—The legislation governing bottled waters is the same as that for public-health water supply.

Ice industry.—There are no regulations relating to the ice industry.

Camps, swimming pools, and roadside water supplies.—As yet no regulations have been passed by the health department concerning the sanitation of camps, swimming pools, and roadside water supplies.

BUREAU OF MATERNITY AND INFANCY

The bureau of maternity and infancy was organized in 1923.

Personnel.—In 1930 the staff of the bureau of maternity and infancy consisted of a director, a head nurse, four field nurses, a file clerk, a stenographer, and a mimeograph and mailing clerk.

Prenatal clinics.—As yet no prenatal clinics have been established by the health department.

Midwifery.—No instruction or supervision is given to midwives through the health department.

Ophthalmia neonatorum.—Ophthalmia neonatorum must be reported to the local health officers within six hours, and the person attending the birth must instill a 1 per cent solution of nitrate of silver or other proven antiseptic in the eyes of the new born.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are not licensed by the State department of health.

Preschool hygiene.—Itinerant conferences are held from time to time, and 4,978 children were examined in this way during 1929.

School hygiene.—No school-hygiene activities are carried on by the health department.

Eligibility requirements.—A public-health nurse must be a graduate nurse. No other qualifications are specified.

BUREAU OF PUBLIC-HEALTH EDUCATION

Personnel.—In 1930 the personnel of the bureau of public-health education consisted of a director and a secretary.

Bulletins.—There is a bulletin which is published weekly, and special pamphlets are issued from time to time.

Press service.—News items are sent to the daily papers and to the Associated Press.

Equipment.—The State department of health owns 2 stereopticons, 100 slides, motion-picture equipment and films, and models for county-fair exhibits.

Cooperation.—The State departments of health and education cooperate in carrying on their respective programs.

BUREAU OF PURE FOOD, DRUGS, AND SANITARY INSPECTION

Personnel.—The personnel of the bureau of pure food, drugs, and sanitary inspection in 1930 consisted of the director and six inspectors.

Activities.—The laws of the State conform to the Federal food and drugs act, and the enforcement of these laws is intrusted to the health department.

Food handlers.—The State department of health does not require the medical examination of food handlers. It is required through a local ordinance in a few cities.

Food inspection.—The inspection of food is made by officers of this bureau.

Hotels, etc.—A permit is necessary to operate places where food is handled.

Abattoirs.—The inspection of slaughterhouses is a function of the department of agriculture.

Cold storage.—Regulations have been passed concerning cold-storage warehouses.

Shellfish.—No legislation has been passed governing the shellfish industry.

Milk laws.—Milk supplies are under the control of the State department of agriculture in cooperation with the department of health. All milk purchased for resale must be pasteurized. Milk is analyzed by the state laboratory upon request. In cities where milk ordinances obtain, regular analyses are made by the city laboratories. The department of agriculture enforces tuberculin tests of cattle. There is no regulation covering the licensing of dairies, except in a few cities.

TABLE 200.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years*

OKLAHOMA

Bureaus	1915	1916	1917	1918	1919	1920
Total budget.....	\$32,700	\$50,500	\$50,500	\$59,940	\$59,940	\$145,300
State legislative budget.....	32,700	50,500	50,500	59,940	59,940	145,300
Bureau of administration.....	3,300	5,100	5,100	12,020	12,020	16,400
Bureau of epidemiology.....	5,000	7,500	7,500	7,500	7,500	7,500
Bureau of vital statistics.....	3,400	3,400	3,400	4,120	4,120	6,900
Bureau of food and drugs.....	12,500	23,500	23,500	23,500	23,500	26,400
State public-health laboratory.....		5,000	5,000	10,900	10,900	14,600
Bureau of venereal disease.....						43,000
Bureau of sanitary engineering.....						3,000
Bureau of public-health education.....						2,400
Bureau of maternity and infancy.....						
Bureau of rural sanitation.....						
Full-time counties.....						
Bureau of malaria control.....						

Bureaus	1921	1922	1923	1924	1925
Total budget.....	\$145,300	\$96,350	\$96,350	^{1 2 3 4} \$218,833	^{1 2 3 4} \$253,958
State legislative budget.....	145,300	96,350	96,350	183,671	183,671
Bureau of administration.....	16,400	16,700	16,700	24,300	24,300
Bureau of epidemiology.....	7,500	12,500	12,500	15,000	15,000
Bureau of vital statistics.....	6,900	7,900	7,900	12,700	12,700
Bureau of food and drugs.....	26,400	26,400	26,400	50,400	50,400
State public-health laboratory.....	14,600	13,400	13,400	22,600	22,600
Bureau of venereal disease.....	43,000	15,000	15,000	20,000	20,000
Bureau of sanitary engineering.....	3,000	3,650	3,650	4,800	4,800
Bureau of public-health education.....	2,400	3,400	4,900	3,400	4,900
Bureau of maternity and infancy.....			5,000	¹ 45,050	¹ 45,000
Bureau of rural sanitation.....				⁴ 2,700	⁴ 5,650
Full-time counties.....				^{3 4} 14,237	^{3 4} 63,073
Bureau of malaria control.....					

Bureaus	1926	1927	1928	1929	1930
Total budget.....	^{1 2 4} \$173,759	^{1 2 4} \$173,759	^{1 2 4} \$183,814	^{1 2 4} \$182,214	^{2 4} \$205,850
State legislative budget.....	129,879	129,879	143,525	142,725	196,950
Bureau of administration.....	38,825	38,825	42,060	41,260	59,050
Bureau of epidemiology.....	5,000	5,000	5,000	5,000	5,000
Bureau of vital statistics.....	8,700	8,700	8,700	8,700	8,700
Bureau of food and drugs.....	7,200	7,200	9,600	9,600	13,200
State public-health laboratory.....	16,000	16,000	16,200	16,200	17,200
Bureau of venereal disease.....	7,000	7,000	7,000	7,000	10,800
Bureau of sanitary engineering.....	3,000	3,000	3,000	3,000	3,000
Bureau of public-health education.....	3,900	3,900	3,900	3,900	3,900
Bureau of maternity and infancy.....	¹ 42,359	¹ 42,359	¹ 42,779	¹ 42,779	31,100
Bureau of rural sanitation.....	^{2 4} 40,575	^{2 4} 40,575	^{2 4} 45,575	^{2 4} 45,575	^{2 4} 35,000
Full-time counties.....					
Bureau of malaria control.....					10,000

¹ U. S. Children's Bureau funds included. (See Table 201.)² U. S. Public Health Service funds included. (See Table 201.)³ Local funds included. (See Table 201.)⁴ Rockefeller Foundation funds included. (See Table 201.)

TABLE 201.—Total appropriations for State department of health, by years

OKLAHOMA

Year	Total Appropriation	Source of funds and amounts					
		State Legislature	U. S. Public Health Service	U. S. Children's Bureau	County	County towns	Rockefeller Foundation
1915.....	\$32, 700	\$32, 700					
1916.....	50, 500	50, 500					
1917.....	50, 500	50, 500					
1918.....	59, 940	59, 940					
1919.....	59, 940	59, 940					
1920.....	145, 300	145, 300					
1921.....	145, 300	145, 300					
1922.....	96, 350	96, 350					
1923.....	96, 350	96, 350					
1924.....	218, 833	183, 671	\$833	\$23, 679	\$7, 386		\$3, 284
1925.....	253, 958	183, 671	5, 592	23, 679	29, 268	\$990	10, 758
1926.....	173, 759	129, 879	4, 300	23, 679			15, 901
1927.....	173, 759	129, 879	4, 300	23, 679			15, 901
1928.....	183, 814	143, 525	4, 300	23, 679			12, 310
1929.....	182, 214	142, 725	4, 300	23, 679			11, 510
1930.....	205, 850	196, 950	4, 300				4, 600

OREGON

STATE BOARD OF HEALTH

Organization.—In 1903 the Oregon State Board of Health was created. The members of the board must be physicians especially selected for their fitness for the office. The board consists of seven members, six members appointed by the governor with the consent of the senate, and one, a secretary, who is elected by the board.

Term of office and compensation.—The term of office is four years, three members retire every two years. The members of the State board of health do not receive any compensation other than for expenses incurred in necessary travel.

Meetings.—Meetings of the State board of health are held quarterly and are called at any time or place that the board may provide.

EXECUTIVE OFFICER

Legal qualifications.—The State board of health elects a secretary, who is the State health officer and the executive officer of the State board of health. A member of the State board of health may be elected or the State health officer may be selected from outside the State board of health. He must be a graduate of a regular medical school and a reputable physician.

Term of office and salary.—The State health officer's tenure of office is four years. He receives a yearly salary of \$4,800 as State health officer and receives in addition \$100 a year as secretary of the State embalmer's examining board, \$100 a year as secretary of the State chiropodists' examining board, and \$10 a day while employed as

Oregon - Organization of the State Department of Health in 1930

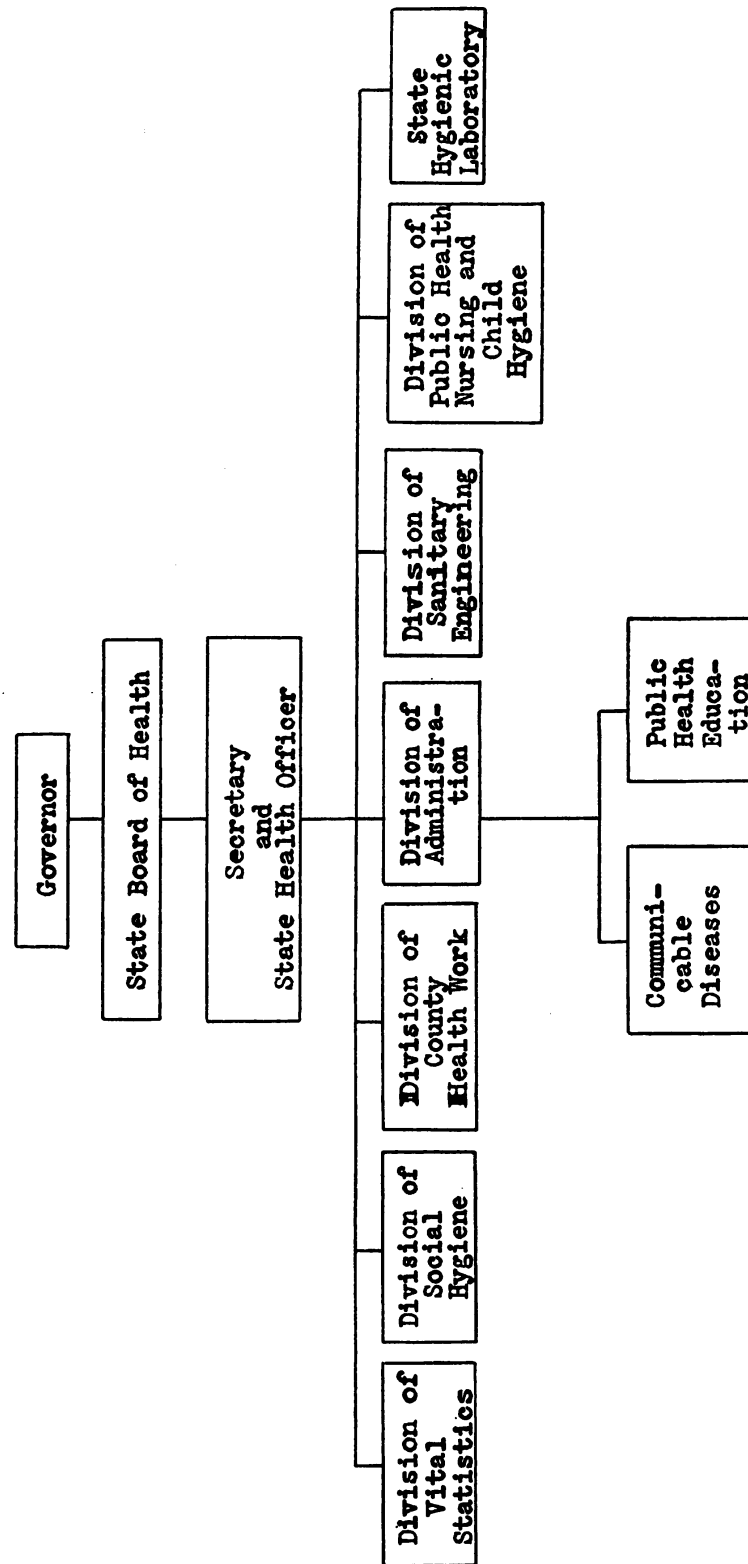


FIGURE 55

secretary of the State board of cosmetic therapy examiners. His necessary traveling expenses within the State are paid; expenses for travel outside the State must be approved by the governor.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State board of health has certain judicial powers. It has the authority to make and enforce laws concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, and midwifery. The local departments of health exercise control of nuisances, communicable diseases, and quarantine, as far as possible. The control of milk supplies and food adulteration are functions of the State dairy and food commission. Enforcement of the medical practice law is handled by the State board of medical examiners.

APPROPRIATIONS

The State department of health is given the maximum service that a 5-cent per capita appropriation will permit. Appropriations are made to the various divisions each year. The legislature meets in January of odd years. The fiscal year of the State department of health ends December 31.

TABLE 202.—*Divisions of the State department of health in 1930*¹

OREGON

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$17,000	² 5	\$4,800	\$4,200	\$9,000
Division of county health work.....	60,395	25	³ 17,150	28,590	45,740
Division of social hygiene.....	3,800	⁴ 5	(⁵)	3,000	3,000
Division of vital statistics.....	3,700	² 4	(⁵)	3,000	3,000
State hygienic laboratory.....	8,200	3	3,600	2,700	6,300
Division of sanitary engineering.....	3,700	1	2,400	-----	2,400
Division of public-health nursing and child hygiene..	12,250	5	2,400	5,460	7,860

¹ Total appropriation, \$111,244; total appropriation exclusive of tuberculosis sanatoria funds, \$111,244; State legislative appropriation, \$45,212; State legislative appropriation plus fees, \$50,512.

² Officials included whose time is devoted to more than one activity.

³ Combined salaries of 6 county health officers.

⁴ The State health officer is included.

⁵ The State health officer is the director.

DIVISION OF ADMINISTRATION

Personnel.—The staff of the division of administration in 1930 consisted of the State health officer, an inspector for bedding and upholstery, a secretary, a part-time clerk, and an accountant.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Upon approval by the secretary of state the State treasurer disburses all funds derived from the State legislature and from outside agencies.

Purchases.—Supplies are purchased on requisition made to the State board of control.

Communicable diseases.—The State health officer directs the work done in communicable diseases, inasmuch as no division of epidemiology exists under the State department of health.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by physicians and health officers.

Quarantine.—Quarantine measures are controlled by the local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory and is under the control of the school director.

Emergency fund.—No specific fund is provided for use by the State board of health in case of an epidemic. The State emergency board, however, may make such an emergency appropriation.

Tuberculosis.—Tuberculosis-control work is carried on under the direction of the State health officer. The State department of health controls the reporting, isolating, and quarantine of tuberculous cases.

Sanatoria.—Two State tuberculosis hospitals with a capacity of 300 beds are operated by the State board of control. Provision has been made by law for the establishment of county sanatoria, but as yet no tuberculosis institutions are owned or operated by counties.

Clinics.—No tuberculosis dispensaries or clinics were conducted by the State department of health in 1929.

Bedding and upholstery.—The State department of health is charged with the enforcement of the law regulating the manufacture, repair, and sale of articles of bedding and upholstered furniture.

Publicity.—The State health officer has charge of the publicity of the State department of health.

Press service.—Weekly news-letters are sent to all daily and weekly newspapers.

Bulletins.—A weekly news-letter and a monthly nursing bulletin are issued under the direction of the State health officer.

Equipment.—The State board of health owns a stereopticon, 100 slides, 2 motion-picture films, and a portable exhibit.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF COUNTY HEALTH WORK

The division of county health work was established in 1922. At that time funds were made available for the organization of five full-time health units.

Personnel.—In 1930 the personnel of the division of county health work and of the five full-time county health organizations consisted of 5 county health officers, 10 county health nurses, and 5 clerks. The health officers receive a yearly salary of \$3,000; the nurses \$1,800, and the clerks \$900.

Program.—The division of county health work aids counties and municipalities in organizing, establishing, and conducting a creditable full-time health service on a businesslike basis. In order to insure a more uniform and efficient health service through the State, a definite program has been adopted for all full-time units. The activities of the units fall under the heads of quarantine and control of communicable diseases, publicity and public-health education, investigations and general sanitation, infant and child hygiene, medical school supervision, and dispensary and medical care of county dependents. At the close of 1930 there were six full-time county health units in this State.

Supervision.—The State health officer exercises general supervision over county health work. He acts in an advisory capacity only, except when the local organizations fail to function, in which case he may assume direct control of the situation at the expense of the local organization.

Special appropriation.—No special appropriation is provided for county health work.

TABLE 203.—Data on full-time counties operating throughout 1929

OREGON

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel		
								Health officers	Nurses	Clerks
Coos.....	1922	27,765	\$10,860	\$0.39	\$23,916,000	\$0.0005	-----	1	2	1
Clackamas..	1924	45,357	10,380	.23	29,937,000	.0003	-----	1	2	1
Douglas.....	1924	21,899	10,260	.47	34,387,000	.0003	-----	1	2	1
Jackson.....	1924	38,664	10,320	.33	27,925,000	.0004	Medford (10,481)	1	2	1
Klamath.....	1924	30,304	10,500	.35	21,659,000	.0005	Klamath Falls (14,962)	1	2	1
Total.....	-----	156,989	52,320	.33	137,824,000	.0004	-----	5	10	5

DIVISION OF SOCIAL HYGIENE

Organized efforts to reduce and control venereal diseases began in 1921.

Personnel.—The State health officer is the director of the division of social hygiene. He was assisted in 1930 by a rehabilitation officer and three attendants.

Clinic.—A venereal-disease clinic, under the supervision of the State department of health, is operated in conjunction with the medical

school and health bureau of the city of Portland. Local health officers make examinations and report cases, treatments, and releases to the State department of health.

Treatments.—Treatments are administered free of charge to indigent patients. In 1929, 4,256 free treatments were administered; of these, 1,669 were salvarsan.

DIVISION OF VITAL STATISTICS

The division of vital statistics was established in 1904.

Personnel.—The State health officer is the State registrar. In 1930 he was assisted by a secretary and part of the time by two clerks.

Registration district.—The primary registration districts are not laid out according to townships or counties, and are therefore not uniform. The State registrar lays out the districts.

Local registrars.—In cities or towns with a population of 2,000 or over the health officer is the local registrar. The health officer of each county of less than 5,000 population, exclusive of cities of 2,000 population, is the local registrar. Local registrars are paid a fee of 25 cents by the county for each certificate issued.

Registration area.—Oregon was admitted to the registration area for deaths in 1918 and to the registration area for births in 1919.

Reporting of deaths.—In 1929, 99 per cent of the deaths occurring in the State were reported. Deaths must be reported to the local registrars before burial and to the State registrar by the 10th of the month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 98 per cent of the births occurring in the State were reported; of these, 97 per cent were reported by physicians and 3 per cent by midwives and others. Births are reported to the local registrars within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded on a special blank.

Blanks and postage.—The State board of health supplies the blanks for recording returns and the local registrars provide the postage.

Unlawful deaths.—In case death appears to be caused by unlawful or suspicious means, the matter is referred to the coroner.

Burial permit.—Burial permits are required and are issued by the local registrar.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State embalmers' examining board; midwives are not licensed.

STATE HYGIENIC LABORATORY

The laboratory of the Oregon State board of health was established late in 1903, at practically the same time as the board itself. In

September, 1923, it was reorganized, new equipment was added, and laboratory methods and technique were changed to conform with those considered standard and official.

Personnel.—The personnel of the State hygienic laboratory in 1930 consisted of a director, a technician, and a clerk.

Branch and private laboratories.—No branch laboratories have been established and the State department of health has no supervision over the private laboratories in the State.

Special laboratories.—No laboratories other than the hygienic laboratory have been established.

Activities.—During 1929, 25,067 examinations were made by the laboratory. The examinations were mainly Kahn tests, diphtheria-culture examinations, smear examinations, and water analyses. A summary of the diagnostic activities of the laboratory is given on pages 98 to 100.

Fees.—No fee is charged for any of the tests made by the laboratory. Many cities of the State submit specimens of their public water supplies for examination regularly.

Biological products.—All the biological products used are purchased by the State department of health and issued at cost to the health officers by the State hygienic laboratory. No record was kept of the biological products issued in 1929.

Research.—During 1929 an investigation was begun on the practicability of the skin test for diagnosis of undulant fever.

DIVISION OF SANITARY ENGINEERING

The division of sanitary engineering was established in May, 1926.

Personnel.—In 1930, the State sanitary engineer was in charge of this division. He was unassisted.

Public water supplies.—The State department of health has supervision of all public water supplies. Plans for the installation or alteration of a public water supply system must be submitted to the State department of health for approval.

Analysis and inspection.—Public water supplies are analyzed and purification plants are inspected once a year.

Bottled waters.—The State department of health has no special control over bottled waters.

Ice industry.—There are no regulations governing the ice industry.

Sewage disposal.—Plans for installing sewerage systems must be submitted to the State department of health for approval.

Tourist camps and swimming pools.—The sanitation of tourist camps and swimming pools is a function of the State department of health.

Roadside water supplies.—No special legislation has been passed concerning roadside water supplies.

Shellfish sanitation.—The control of the sanitation of shellfish areas is a function of the State department of health, but as yet no specific legislation has been passed.

DIVISION OF PUBLIC-HEALTH NURSING AND CHILD HYGIENE

Personnel.—The personnel of the division of public-health nursing and child hygiene in 1930 consisted of a director, a State supervisory nurse, a field supervisor, a nurse, an office secretary, and a clerk.

Prenatal and maternal hygiene.—Prenatal clinics, talks, lectures, and classes for mothers are conducted and prenatal letters and literature are distributed. Local communities are encouraged to develop their own prenatal and maternal programs. The division cooperates with physicians, public-health nurses, women's clubs, and other groups in carrying out this work. During 1929, 21 itinerant prenatal clinics were conducted by the division and 135 permanent clinics were maintained by local organizations.

Midwifery.—No supervision or instruction is given. Midwives must register with the local registrar.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported to the health officer within 24 hours. The health officer must advise the parents of the proper treatment.

Lying-in hospitals and orphanages.—Orphanages and maternity hospitals are licensed by the child-welfare commission.

Infant and preschool hygiene.—Clinics for infants and preschool children are organized and arranged for by county nurses, and by local groups and boards of health. During 1929, 21 itinerant clinics were conducted by this division for the examination of school children, and 661 permanent clinics were maintained by local organizations. A total of 11,248 children was examined. A "get ready for school" campaign, with special emphasis on the need for immunization against smallpox and diphtheria was carried on in the fall of 1929. The medical examinations were made by the family doctor in his office before the child started school.

School hygiene.—The State superintendent of public instruction is responsible for the medical examination of school children. The work is carried on during the first month of the school year by the superintendent, principal, or teacher in every elementary public school. Local health workers, such as county health officers or school or county nurses, supervise this work. Physical defects are reported to the parents. Examinations are made annually.

Public-health nursing.—A State supervisory nurse and a field supervisor are in charge of this work. Each county is authorized to employ public-health nurses and to appropriate funds for defraying their expenses.

Eligibility requirements.—The standard eligibility requirements of the national organization of public-health nursing are used for the State public-health nurses. In general the same standards prevail for local public-health nurses.

Numbers of nurses.—Thirteen nurses are attached to the full-time county health units; 20 other nurses are paid from county funds, and 2 other nurses are paid from county and volunteer agency funds. The Portland Visiting Nurse Association, supported by the community chest and private funds, employs 18 nurses. Twenty-two school nurses in the city of Portland and 15 school nurses in other large cities of the State are employed under the direction of this division. Two nurses are employed as demonstration nurses by the Oregon Tuberculosis Association.

Nursing program.—The program of public-health nursing in Oregon is general. It includes prenatal and maternal care, infant and pre-school hygiene, school nursing, tuberculosis control, social-case work, and other educational activities.

TABLE 204.—Total budget, State legislative budget for health work, and budgets by divisions, by years

OREGON						
Division	1915	1916	1917	1918	1919	1920
Total budget.....	\$15,000	\$15,000	\$12,500	¹ \$21,896	¹ \$24,315	¹ \$20,996
State legislative budget.....	15,000	15,000	12,500	14,581	17,000	17,000
Division of administration.....	9,008	9,008	8,185	¹ 8,185	¹ 11,129	¹ 11,129
Division of vital statistics.....	2,627	2,627	2,528	2,528	3,148	3,148
State hygienic laboratory.....	3,251	3,251	2,365	2,365	2,894	2,894

Division	1921	1922	1923	1924	1925
Total budget.....	¹ \$38,996	¹ \$45,423	¹ \$57,071	¹ \$82,669	² \$96,011
State legislative budget.....	35,000	35,000	40,000	40,000	42,500
Division of administration.....	12,728	14,700	13,145	13,977	14,900
Division of vital statistics.....	3,500	3,750	3,650	4,000	3,700
State hygienic laboratory.....	3,440	⁴ 3,570	⁴ 4,987	⁴ 7,237	⁴ 6,550
Division of social hygiene.....	¹ 3,022	¹ 4,870	¹ 4,471	¹ 3,952	¹ 3,750
Division of public-health nursing.....	10,000	10,000	7,017	7,018	7,000
Division of child hygiene.....	-----	² 18,250	² 13,483	² 20,766	² 20,783
Division of county health work.....	-----	-----	⁴ 2,300	⁴ 4,600	⁴ 4,900
Full-time counties.....	-----	-----	² 9,982	² 36,930	² 51,580

Division	1926	1927	1928	1929	1930
Total budget.....	² \$95,110	² \$99,877	² \$104,353	² \$98,782	³ \$111,244
State legislative budget.....	42,500	44,765	44,765	45,212	45,212
Division of administration.....	14,900	⁵ 16,250	⁵ 17,000	⁵ 17,000	⁵ 17,000
Division of vital statistics.....	3,700	3,700	3,700	3,700	3,700
State hygienic laboratory.....	⁴ 7,000	7,800	7,800	8,200	8,200
Division of social hygiene.....	3,700	3,700	3,800	3,800	3,800
Division of public-health nursing.....	7,000	6,765	6,765	-----	-----
Division of child hygiene.....	² 20,783	² 20,783	² 20,783	-----	-----
Division of county health work.....	⁴ 818	⁴ 570	⁴ 2,590	⁽⁶⁾ -----	⁽⁶⁾ -----
Full-time counties.....	² \$52,320	² \$52,320	² \$52,095	² \$52,320	³ \$60,395
Division of sanitary engineering.....	⁴ 2,450	⁴ 1,600	2,000	3,450	3,700
Division of public-health nursing and child hygiene.....	-----	-----	-----	² 17,250	12,250

¹ Chamberlain-Kahn funds included. (See table 205.)

² United States Children's Bureau funds included. (See table 205.)

³ Local funds included. (See table 205.)

⁴ Rockefeller Foundation funds included. (See table 205.)

⁵ Bedding and upholstery inspection fees included. (See table 205.)

⁶ Included with full-time counties.

TABLE 205.—*Total appropriations for State department of health, by years*

OREGON

Year	Total ap- propria- tion	Source of funds and amounts						
		State legis- lature	U. S. Chil- dren's Bureau	County	Camp fees	Rocke- feller Founda- tion	Cham- berlain- Kahn	Bedding and up- holstery fees
1915.....	\$15,000	\$15,000						
1916.....	15,000	15,000						
1917.....	12,500	12,500						
1918.....	21,895	14,581					\$7,315	
1919.....	24,315	17,000					7,315	
1920.....	20,996	17,000					3,996	
1921.....	38,996	35,000					3,996	
1922.....	45,423	35,000	\$6,625	\$1,510		\$620	1,667	
1923.....	57,071	40,000	8,000	4,420		3,910	741	
1924.....	82,669	40,000	15,283	15,690		11,510	185	
1925.....	96,011	42,500	15,283	24,580	\$847	12,800		
1926.....	95,110	42,500	15,283	25,320	1,042	10,965		
1927.....	99,877	44,765	15,283	25,320	1,210	10,085		\$3,214
1928.....	104,353	44,765	15,283	34,095	1,307	5,795		3,108
1929.....	98,782	45,212	5,000	38,820	1,250	4,500		4,000
1930.....	111,244	45,212		55,957	1,300	4,775		4,000

PENNSYLVANIA

STATE DEPARTMENT OF HEALTH

Organization.—The State department of health was created in 1905 and consisted of the commissioner of health and the advisory board. The administrative code of 1929, which effected a reorganization of the State government, did not alter the structure of the department of health, although the commissioner of health is now termed the secretary of health and the advisory board, the advisory health board. The secretary of health and the advisory health board, which is composed of six members, are appointed by the governor, with the consent of the senate. The majority of the members must be physicians, graduates of legally constituted medical colleges, and with at least 10 years' professional experience. One member must be a civil engineer.

In its general plan and scope, Pennsylvania stands practically alone in the organization of its State health work. The responsibility and control is central, the financial support comes from the legislature, the State is definitely standardized, and laws and regulations are uniform in all parts of the Commonwealth.

ADVISORY HEALTH BOARD

Term of office and compensation.—The members of the advisory health board serve for a period of four years; all terms expire at the same time. The members receive no salary, but their traveling and other expenses are allowed while engaged in the actual duties of the board.

Meetings.—The advisory health board meets quarterly and at the call of the secretary of health.

Pennsylvania - Organization of the State Department of Health in 1930

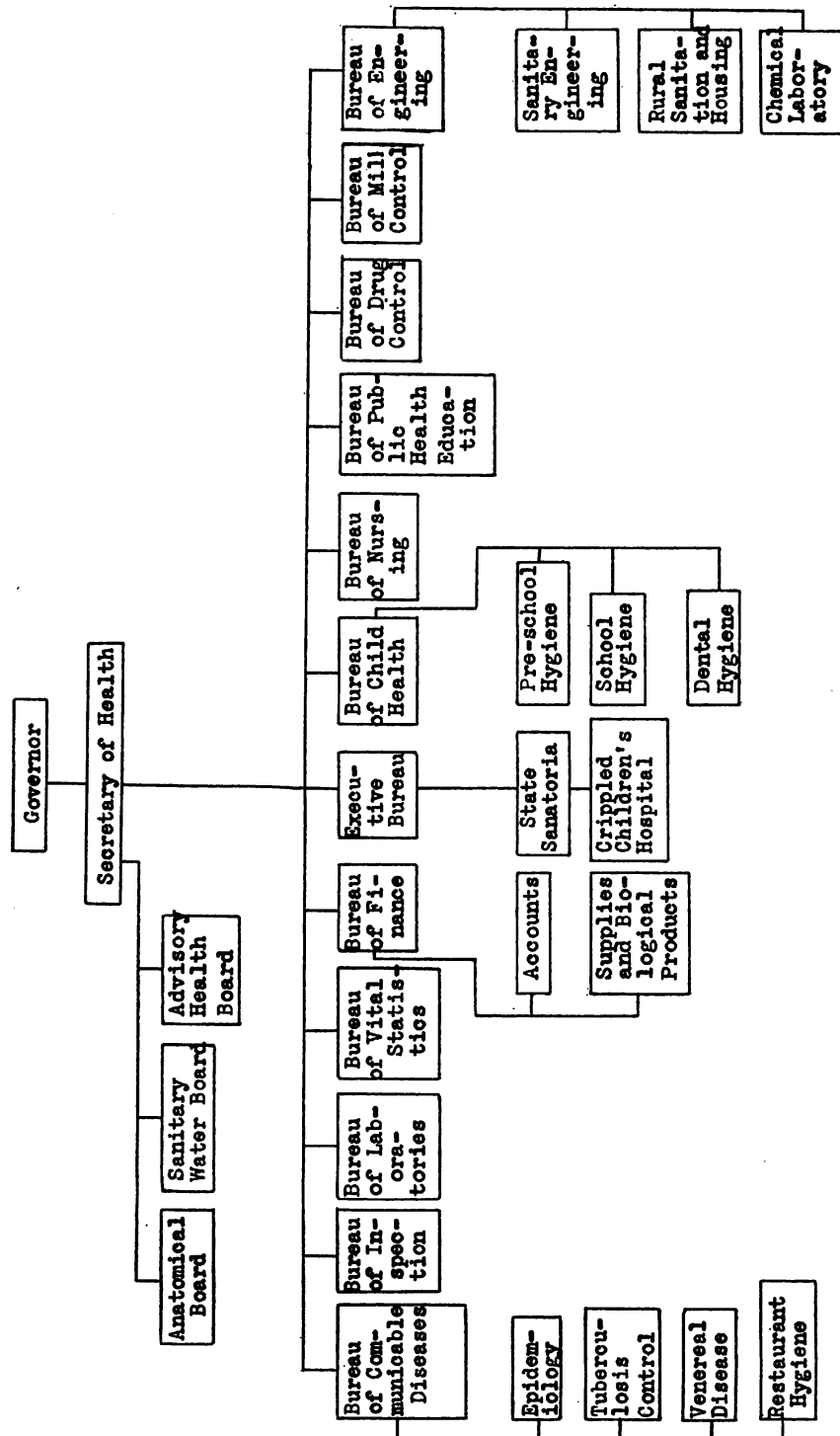


FIGURE 56

EXECUTIVE OFFICER

Legal qualifications.—The secretary of health must be a graduate of a legally constituted medical college and must have had at least 10 years' professional experience. He is appointed by the governor with the advice and consent of the Senate, from outside the membership of the board. By virtue of his office he becomes chairman of the advisory health board and of the sanitary water board, and a member of the State board of medical education and licensure, the State dental council and examining board, the water and power resources board, the anatomical board, and the Pennsylvania alcohol-permit board.

Term of office and salary.—The secretary of health serves for a term of four years. He receives a yearly salary of \$10,000 and necessary traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Powers of the advisory health board.—It is the power and duty of the advisory health board to advise the secretary of health on such matters as he may bring before the board and to make such rules and regulations within the limits of legislation as may be deemed by the board necessary for the prevention of disease and for the protection of the lives and health of the people. These regulations have the force of law throughout the State.

Powers and duties of the secretary of health.—The secretary of health is a member of the governor's cabinet, directly charged with the protection of the health of the people of the Commonwealth and with authority to determine and employ the most efficient and practical means for the prevention and suppression of disease.

Judicial, legislative, and executive powers.—The State department of health has no judicial power. It has authority, subject to basic legislation, to make and enforce rules and regulations in addition to those of the advisory health board with regard to sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, the handling and distribution of milk, and narcotic drugs. The department of health is the administrative agent of both the advisory health board and the sanitary water board. The control of food and milk adulteration is a function of the State department of agriculture. Enforcement of the medical practice law and the licensing of midwives are under the control of the board of medical education and licensure. The supervision of midwives is carried on by a section of the State department of health.

Rural health work.—Rural public-health work in this State is the particular responsibility and function of the State department of health. It has been carried on in every phase and in a uniform manner

in every county since the organization of the State department of health in 1905. The State department of health appoints all local officers and finances all public-health work except that carried on in organized municipalities. Subject to the approval of the secretary of health, the control and direction of the work of these field forces lie in the appropriate bureaus of the health department. Public-health work falls into two groups in this State.

Municipalities.—The first group is composed of approximately 1,000 municipalities and a few first-class townships.¹¹ According to law each municipality shall maintain a local board of health and employ its own health officers. It may cooperate with the county in which it is situated or with any political subdivision within such county, as well as with the department of health, in the administration and enforcement of the State laws and the regulations of the State department of health. Local boards of health must conform to the regulations of the State department of health, although they may be supplemented by local ordinance.

Second-class townships.—The second group is composed of the second-class townships, and includes all the territory not organized as municipalities. The total population of the second-class townships is in excess of 3,500,000. The State department of health assumes entire responsibility for the protection of the health of the people in the second-class townships and provides county medical officers, health officers, sanitary inspectors, public-health nurses, school medical inspectors, etc., in these districts.

Additional services.—The State department of health appoints 7 district sanitary engineers, each with an assistant district engineer; approximately 247 lay health or quarantine officers, divided among the counties and working under the county medical directors; 150 public-health nurses; 400 school medical inspectors for school districts with less than 5,000 population; approximately 130 clinic chiefs and assistants in State chest clinics; and approximately 67 clinic chiefs and assistants in State genito-urinary clinics scattered throughout the State. It maintains state-wide registration of vital statistics through approximately 750 registrars appointed by the secretary of health but paid by the counties. It also maintains a state-wide laboratory service.

Full-time county units.—The employment of full-time county medical directors was begun in 1924. There were in 1930 three appointed by the secretary of health and paid by the department of health. They serve Allegheny, Bucks, and Luzerne Counties. All counties in the State are similarly organized for health work, with the exception that the medical directors in the counties mentioned are on a full-time

¹¹ A first-class township is one with a population of 300 or more per square mile.

basis, and receive a proportionately larger salary than the medical directors in the other counties, who are on a part-time basis.

Personnel and budget.—The personnel and budget for carrying on rural health work is included under the various bureaus of the health department.

TABLE 206.—Data on full-time counties operating throughout 1929 ¹

PENNSYLVANIA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel		
								Health officers	Non medical health officers	Nurses
Allegheny.....	1925	1,355,458	\$19,720	\$0.01	\$1,826,197,000	\$0.00001	Bellevue (10,043). Braddock (19,484). Carnegie (12,398). Clairton (14,391). Coraopolis (10,266). Dormont (12,516). Duquesne (21,157). Homestead (20,173). McKeesport (53,846). McKees Rocks (17,973). Munhall (12,340). North Braddock (16,593). Pittsburgh (661,666). Swissvale (15,516). Turtle Creek (10,433). Wilkinsburg (29,029).	1	3	6
Bucks.....	1925	95,301	13,680	.14	64,196,000	.0002	Bristol (11,650).	1	2	2
Mercer.....	1925	161,522	15,720	.10	171,017,000	.0001	Farrell (14,479). Sharon (25,491).	1	2	5
Venango.....	1926	(²)	(²)	(²)	(²)	(²)	Franklin (10,222). Oil City (21,994).	(²)	(²)	(²)
Total.....		1,612,281	49,120	.03	2,007,410,000	.00002		3	7	13

¹ These counties are reported as regular full-time counties by the State department of health. They are entirely financed by the State, however.

² Included with Mercer County.

Supervision.—The State department of health acts in an advisory and supervisory capacity toward the local health organization of municipalities, but in an emergency may take control. In case of inefficiency the secretary of health may remove a local board of health and substitute for it his own officers at local or State expense. City boards of health may be removed only after the favorable result of an appeal to the courts. The legislation of 1927 requires that borough and first-class township health officers have either training or experience in public-health work. They must be approved by the State secretary of health before entering upon their duties. The secretary of state also assumes control when for any reason no local board exists. The legislation of 1929 permits boroughs and first-class townships to surrender voluntarily to the State department of health their public-health responsibilities; the department then takes over their work

without expense to the municipality. About 10 per cent of the boroughs and first-class townships are thus under the direct control of the State department of health. In addition the department is directly responsible for all public-health work carried on in the second-class townships.

APPROPRIATIONS

The State legislature makes a biennial appropriation to the State department of health, which is allotted to the various bureaus by the secretary of health, subject to the approval of the State budget officer. The State legislature meets in January of odd years. The fiscal year of the State department of health ends May 31.

TABLE 207.—*Bureaus of the State department of health in 1930*¹

PENNSYLVANIA

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Executive bureau.....	\$52,760	14	\$10,000	\$20,240	\$30,240
Bureau of finance.....	191,118	33	5,500	51,798	57,298
Bureau of communicable diseases:					
Epidemiology.....	320,774	² 300	5,500	224,240	229,740
Tuberculosis control.....	41,242	² 128	4,000	5,718	9,718
Venereal disease control.....	30,635	² 32	4,380	16,344	20,724
Restaurant hygiene.....	(³)	6	3,100	(³)	3,100
Bureau of inspection.....	19,857	7	4,000	10,800	14,800
Bureau of vital statistics.....	119,592	94	5,500	110,380	115,880
Bureau of laboratories.....	75,147	35	5,740	57,800	63,540
Bureau of engineering.....	115,340	37	7,500	86,170	93,670
Sanitary water board.....	96,000	28		58,700	58,700
Bureau of child health:					
Preschool hygiene.....	54,555	25	4,260	1,500	5,760
School hygiene.....	116,143	² 420	⁴ 7,500	19,760	27,260
Dental hygiene.....	9,697	3	4,260	3,140	7,400
Bureau of nursing.....	284,344	148	4,260	236,640	240,900
Bureau of public-health education.....	7,242	3	4,000	2,580	6,580
Bureau of drug control.....	22,674	8	4,380	14,710	19,090
Bureau of milk control.....	20,000	10	4,200	13,200	17,400

¹ Total appropriation, \$3,217,500; total appropriation exclusive of tuberculosis sanatoria funds and the hospital for crippled children, \$1,577,120; total State legislative appropriation exclusive of all tuberculosis sanatoria funds and the hospital for crippled children, \$1,577,120.

² Officials included whose time is devoted to more than 1 activity.

³ Under bureau of communicable diseases.

⁴ Also the deputy secretary of health.

EXECUTIVE BUREAU

Personnel.—In 1930 the personnel of the central office consisted of the secretary of health, the deputy secretary of health, three secretaries, four clerks, four motor service employees, and one maintenance engineer.

Civil service.—The employees of the State department of health are not civil-service appointees. Changes in State administration do not generally affect the tenure of personnel in the department.

Tuberculosis clinics and sanatoria.—Tuberculosis clinic and sanatoria work, inaugurated in 1927, is carried on under the direct supervision of the secretary of health.

State tuberculosis clinics are held for indigent patients only. Previously the tuberculosis clinics were maintained entirely by the State, but local communities are now expected to contribute their share. This change was made not only because of a highly restricted State budget but also on the principle that the expense of clinics operated for local benefit, with local personnel, should properly be borne by the community. Ninety-two State chest clinics, exclusive of those in Philadelphia and Pittsburgh, are now located in accessible communities throughout the State. One hundred and seventeen physicians, appointed by the secretary of the health and paid a small remuneration by the State for their services, serve the people in these clinics. The State department of health furnishes the clinic equipment, pays the nurses, and provides supplies free of charge. Community support, linked with State aid and supervision, has resulted in making the clinics permanent, in giving them an official position, in maintaining a high standard of administration, and in furnishing a systematic means by which indigent tuberculosis patients and children with latent infection are cared for and admitted to the State sanatoria. Entrance to the State sanatoria is through the clinics. Propaganda is circulated by physicians and nurses, in cooperation with tuberculosis societies where possible. Examinations are made and advice is given. In addition to the permanently established clinics, motor clinics carry on the work in outlying districts and sparsely settled communities. In September, 1923, 10 State chest clinics in Philadelphia were transferred to the Philadelphia department of health and the Pittsburgh clinic was taken over by the city health department.

Admission centers.—In addition to the State clinics, 19 clinics, supported entirely by independent agencies approved by the secretary of health serve as admission centers for the State tuberculosis sanatoria. With one exception, these clinics are maintained by city health departments and institutions specializing in chest work.

Sanatoria.—The State maintains three tuberculosis sanatoria with a total capacity of 2,055 beds for the treatment of indigent cases. Mount Alto with 885 beds is a camp for ambulatory cases only, Cresson with 720 beds is a mixed camp and hospital, while Hamburg with 450 beds is equipped solely for bed patients. There is a continuous waiting list of from 800 to 1,200 patients. They are admitted in rotation and in accord with county quota, preference being given however, to the incipient cases and to cases that constitute a social menace due to contact with children. In 1930 an appropriation of \$930,698 was included in the State department of health budget for the tuberculosis sanatoria.

In addition to the State sanatoria, there are three county sanatoria with a capacity of 237 beds; three municipal sanatoria with a capacity

of 490 beds; five private sanatoria with a capacity of 340 beds; and eight semiprivate sanatoria with a capacity of 840 beds.

Hospital for crippled children.—The State department of health has completed the first unit of a hospital for crippled children at Elizabethtown. The hospital, which is definitely for rehabilitation purposes, provides care, vocational training, and treatment of indigent children who are afflicted with surgical "tuberculosis and allied conditions." It accommodates 100 patients.

BUREAU OF FINANCE

Organization.—The bureau of finance, which has charge of all fiscal matters of the health department, is divided into the division of accounts and the division of supplies and biological products.

Activities.—Budget estimates for the operation of the health department are compiled by this bureau, approved by the secretary, and submitted to the governor for approval. A roster of the personnel of the entire State department of health is kept by this bureau and all changes pass through its records.

DIVISION OF ACCOUNTS

Personnel.—In 1930 the personnel of the division of accounts consisted of a director, an auditor, a bookkeeper, and 13 clerks and stenographers.

Activities.—The actual accounting and bookkeeping work of the health department is done by this division. From its records, assistance is rendered to other division chiefs in determining the allotments necessary to carry on their work. All pay-roll expenses and purchase vouchers pass through the division.

The division also compiles at the end of each month a detailed statement of expenditures which is submitted to the secretary of health, and by him to the State budget secretary for approval by the governor. A cost-accounting section is responsible for the compilation of the operating costs of all the bureaus and divisions of the department, including the three tuberculosis sanatoria and the State hospital for crippled children and of the operating cost of approximately 200 automobiles and trucks. Cost figures for the general divisions are obtained from vouchers and the monthly pay rolls; operating costs of the sanatoria are computed from the requisitions obtained from the storekeeper at each institution covering the withdrawal of supplies from the stores. The division of accounts is also responsible for the storekeeping systems in all storerooms of the department and for periodic inventories both of stores and of plant equipment.

Disbursement of funds.—All vouchers contain itemization of all expenses incurred and purchases made. After being audited in the accounting division and by the auditor general they are passed to the State treasurer where the checks are drawn. The checks are turned over to the division of accounts and sent from there to the payees.

Purchases.—The division of accounts is responsible for the compilation of specifications for merchandise required by the department and assists in the setting of standards. Requisitions are submitted by the various divisions of the department for supplies required. A purchase requisition is then prepared for the approval of the secretary of health or his deputy and forwarded to the department of property and supplies. All supplies are inspected on delivery and acknowledgments are obtained in proper form. From these records invoices are checked and passed for payment by the department of property and supplies.

DIVISION OF SUPPLIES AND BIOLOGICAL PRODUCTS

Personnel.—In 1930, the personnel of this division consisted of a chief, an assistant chief, a secretary, 14 clerks and stenographers, a storekeeper, 2 storeroom assistants, and a cleaner.

Activities.—The division of supplies and biological products represents the central storeroom of the health department, from which supplies are distributed to tuberculosis and genito-urinary clinics. This division also forms a point of contact between the health department and the departments of property and supplies and of printing and binding, from which all stationery, office supplies, and equipment are obtained for the executive offices.

Biological products.—This division keeps at Harrisburg a stock of the various biological products carried by the State department of health. Biological products are also carried by individual distributors throughout the State. Requisitions from physicians in good standing are honored by both the central storeroom and the various distributors.

BUREAU OF COMMUNICABLE DISEASES

Organization.—The bureau of communicable diseases consists of four sections: Epidemiology, tuberculosis, venereal disease, and restaurant hygiene.

SECTION OF EPIDEMIOLOGY

Personnel.—The personnel of the epidemiological section consisted in 1930 of a director, 3 epidemiologists, 1 supervisor of quarantine officers, 2 full-time and 63 part-time county medical directors, 98 full-time and 149 part-time quarantine and sanitary officers, and 11 stenographers and clerks. The nurses who work with this section are included in the personnel of the bureau of nursing.

Activities.—The epidemiological section is responsible for the supervision of municipal health work, the supervision of communicable-disease work carried on in the rural districts, the investigation and control of epidemics, and the collection and analysis of communicable-disease morbidity statistics.

Reporting of diseases.—Municipal health officers report cases of communicable diseases weekly to the State department of health. In emergency, cases are reported immediately. Department quarantine health officers in the rural districts report cases daily.

Quarantine.—Quarantine measures are enforced by the secretary of health through the department quarantine health officers.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—No emergency fund, except that in the hands of the governor, is provided for use in case of an epidemic.

SECTION OF TUBERCULOSIS

Personnel.—In 1930 the personnel of the section on tuberculosis consisted of a director, 3 clerks, and 117 part-time clinic physicians.

One hundred and twenty clinic nurses are included in the personnel of the bureau of nursing.

Program.—Five phases of tuberculosis-control work are incorporated in the program of the State department of health: Diagnosis, early sanatorium care, care and treatment of indigent and referred patients, care of children with latent tuberculosis, and prevention of tuberculosis through education.

Sanatoria.—See page 521.

Tuberculosis clinics.—See page 522.

SECTION OF VENEREAL-DISEASE CLINICS

Personnel.—The staff of the venereal-disease clinics consisted in 1930 of a director, a stenographer, a clerk, and 67 part-time clinicians. Thirty-seven nurses are included in the personnel of the bureau of nursing.

Activities.—The clinics carry on work in the medical, educational, legal, and sociological phases of venereal-disease control.

Clinics.—By law all inmates of penal institutions are required to be examined and, if found infected with a venereal disease, to be treated. While the treatment of voluntary patients is the chief function of the clinic, a special effort is being made to discover and control the persons who are found to be sources of infection. This work rests largely upon the public-health nurse. During 1929, 53 clinics were operated in strategic localities under subsidies from the State department of health.

Treatments.—During 1929, 157,234 free treatments were administered.

Legal control.—The State police have been appointed health officers. As such they may in a so-styled health raid, act under the reasonable-suspicion clause of the quarantine law. Apprehended prostitutes are taken at once to a detention house and placed under quarantine where habeas corpus proceedings are unavailing.

Social service.—It is recognized that no program of venereal-disease control is complete without an efficient social service. The State department of health therefore stimulates the selection of properly qualified social case workers in all communities.

RESTAURANT HYGIENE

Personnel.—The staff of the restaurant hygiene section consisted in 1930 of a director, five stenographers and clerks, and three field inspectors.

Activities.—The section is charged with the administration of laws which require that no person shall be employed nor permitted to work as a public food or drink handler without first having obtained a certificate from a reputable physician certifying that such person is free from communicable diseases. The law, in addition, prohibits the furnishing of dishes or utensils in eating or drinking places unless thoroughly cleansed after each individual use. Common towels and common drinking cups are also forbidden. Certain standards of maintenance from the sanitary standpoint are required. Restaurant hygiene work is carried on by the boards of health in 1,020 municipalities under the direct supervision of the section of restaurant hygiene. In the rural districts this work, including that in connection with tourists' camps, county fairs, etc., is handled directly by the health officers and nurses of the department of health.

BUREAU OF INSPECTION

Personnel.—The personnel of the bureau of inspection consisted in 1930 of a chief, a secretary, and five inspectors.

Activities.—The bureau of inspection was created in 1927 to keep in touch with and to investigate and prosecute violations of laws and regulations. Its agents have collected numerous certificates of births which had not been reported by physicians.

BUREAU OF VITAL STATISTICS

The bureau of vital statistics functions under an act of assembly, which provides for the registration of births, deaths, marriages, and cases of communicable diseases. Approximately 10,000,000 original

certificates of births, deaths, and marriages, dating from January 1, 1906, are on record. Certified copies of these certificates are available when proper application is made to the bureau of vital statistics at Harrisburg. A fee of 50 cents is charged for each search or issuance. The fees received for this service are remitted to the State department of revenue and in turn to the State treasury. Requests for copies of certificates totaled 87,143 for the year 1929.

Organization.—The State is divided into about 750 registration districts, each of which is supervised by a local registrar. The main bureau is located in the State capitol at Harrisburg; branch offices are located in Philadelphia, Pittsburgh, and Scranton.

Personnel.—In 1930 the personnel of the bureau of vital statistics was comprised of the State registrar and 85 employees.

Registration districts.—The boroughs, cities, and townships are the primary registration districts in the State. A registration district, which may comprise one or more primary districts, has a local registrar and deputy, authorized to receive original birth and death certificates and to issue burial transit permits.

Local registrars.—The 750 local registrars are appointed by the secretary of health. They receive a fee of 50 cents for each certificate properly registered. Fees are paid by the county treasurer after proper certification is made by the bureau of vital statistics.

Registration area.—Pennsylvania was admitted to the registration area for deaths in 1906, and to the registration area for births in 1915.

Reporting of deaths.—In 1929, 99.9 per cent of the deaths occurring in the State were reported; all of these were reported by undertakers. Deaths must be reported to the local registrar within five days and to the State registrar by the 5th of the following month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 96.5 per cent of the births occurring in the State were reported, of these, 93.2 per cent were reported by physicians, 6.3 per cent by midwives, and 0.5 per cent by others. Births must be reported to the local registrar within 10 days and to the State registrar by the 10th of the following month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health provides the blanks and the postage for recording the returns.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner or district attorney of the county in which said death occurred is notified.

Burial permits.—Burial permits are mandatory and must be secured from the local registrars and presented to the sexton prior to burial.

Licensing.—Physicians and midwives are licensed by the State board of medical education and licensure; undertakers are licensed by the State board of undertakers.

BUREAU OF LABORATORIES

The laboratories of the State department of health were established in 1906 to aid physicians in the scientific diagnosis and care of the people.

Personnel.—In 1930 the personnel of the bureau of laboratories consisted of a chief, a chemist, 4 bacteriologists, 16 pathology, bacteriology, and serology technicians, 10 clerks, and 6 general helpers.

Central laboratory.—State-wide laboratory service is afforded by the laboratory of the State department of health, located at the University of Pennsylvania in Philadelphia.

Branch laboratories.—Three branch laboratories are located at each of the three State sanatoria and financed from the sanatorium appropriation.

Motor field laboratories.—Nine motor laboratories are in service. Three have been equipped for water analysis and epidemiological work, one for milk analysis, and five for the study of stream pollution.

Private laboratories.—The State department of health has no supervision over private laboratories in the State.

Activities.—During 1929, 99,250 examinations were made. These included Wassermann blood tests, uranalyses, tuberculosis sputa examinations and examinations of typhoid and diphtheria cultures. A summary of diagnostic activities is given on pages 98–100.

Fees.—No fee is charged for any service performed by the laboratories.

Biological products.—Biological products are not manufactured, but with the exception of antirabic vaccine are distributed free of charge to doctors and clinics. A detailed analysis of the biological products distributed during 1929 through the division of supplies and biological products of the bureau of finance is given on page 103.

BUREAU OF ENGINEERING

Personnel.—The staff of the bureau of engineering consisted in 1930 of a chief engineer, an assistant chief engineer, 21 engineers, 4 chemical engineers, 4 chemists, 6 stream surveyors, 4 inspectors, a nuisance officer, a permit registrar, a draftsman, a transitman, a supervising clerk, 2 secretaries, 13 stenographers, and 3 clerks.

Activities.—The activities of the bureau of engineering are concerned with public waterworks, semipublic and private water supplies, public sewerage, rural sanitation, housing, and epidemics. The bureau is divided into the section of sanitary engineering, the section of rural sanitation including housing, and the chemical laboratory.

Section of sanitary engineering.—The issuance of permits for water-works and sewers is by law a function of the secretary of health. The bureau of engineering makes investigations and recommendations.

Sanitary water board.—The sanitary water board, consisting of the secretary of health as chairman, the secretary of forests and waters, the commissioner of fisheries, and three appointed members, was created by the administrative code to administer the antistream pollution laws and to investigate ways and means of preventing pollution of the waters of the State. This board has classified the waters of the State into three groups: Streams which are unpolluted or uncontaminated by any artificial sources or those subject to minor artificial pollution which, through artificial or natural purification, can become clean, which streams it is the policy of the board to maintain in their present condition; streams which are somewhat polluted, which include most of the streams of the State, and which require various degrees of treatment according to the condition and the present and probable future use of the stream; streams draining industrially developed areas which receive so much industrial waste as to render impracticable and uneconomical any attempt to restore them to a clean condition. The problem of conserving the quality of water flowing into the streams of Pennsylvania is a tremendous one and is being approached in a broad, comprehensive fashion. Field offices have been established to carry on the engineering work connected with this problem.

Analysis.—The frequency of analysis of water supplies varies with the source of the supply. Underground supplies are usually analyzed once in three months. Filtered or chlorinated supplies are analyzed weekly and, in some instances, daily.

Inspection.—All water-purification plants are inspected at least once a year.

Bottled waters.—An act passed in 1929 gave the State department of health control over bottled waters.

Ice industry.—No specific legislation has been passed concerning the ice industry. The broad powers granted to the secretary of health enable him to take necessary measures in cases where the public health is concerned.

Sewage disposal.—Inspection of sewage-disposal systems is made from time to time and advice on operating features or necessary improvements is given.

Camps and swimming pools.—Rules and regulations have been passed concerning the sanitation of camps and are in process of formation concerning swimming pools.

Roadside water supplies.—Roadside water supplies throughout the State are analyzed by three motor laboratories maintained by the

bureau of engineering. The physical conditions are examined by engineers. If the supplies are approved a placard to that effect is posted. In 1929 about 4,500 supplies were examined of which approximately 50 per cent were approved. Where the supply can not be corrected, a warning placard is posted.

Shellfish sanitation.—The prevention of shellfish pollution in packing houses is a function of the bureau of engineering.

RURAL SANITATION, INCLUDING HOUSING

Activities.—The section of rural sanitation is concerned with public health nuisances, private sewage disposal, and sanitation in general throughout the rural sections of the State. Much of the work is done by department health officers under the supervision of the chief of the section.

In July, 1923, the bureau of engineering assumed the work of the former bureau of housing. The work carried on under the supervision of a housing engineer assisted by the other department engineers, is confined to boarding, lodging, and tenement houses as specified by the housing act of 1913. Orders and regulations for the sanitation of such places were adopted by the advisory board in 1923.

CHEMICAL LABORATORY

Activities.—The chemical laboratory connected with the bureau of engineering is engaged chiefly in the chemical, microscopic, and mineral analysis of water, and in the analysis of industrial wastes and sewages. Special research problems relating to the purification of water, the treatment of industrial wastes and sewages, and the pollution of streams, have been studied.

Motor laboratories.—Connected with the chemical laboratory are five motor laboratories equipped to investigate problems in the field dealing with sewage and industrial wastes treatment or to make a **general survey of a stream.**

Motor field laboratories.—Three motor field laboratories have been equipped for the analysis of water supplies along the highways of the State and at recreation parks and camps for the protection of tourists and of communities through which tourists travel. These motor laboratories are also used for epidemiological purposes. They render valuable assistance in the direct investigation and the consequent rapid curtailment of epidemic disease in different parts of the State.

BUREAU OF CHILD HEALTH

The bureau of child health, under the administration of a medical director, is divided into preschool, school, and dental hygiene sections.

PRESCHOOL HYGIENE

Personnel.—The personnel of the preschool hygiene section of the bureau of child health consisted in 1930 of 3 physicians, 3 organizers, and an office staff of 5 members.

Prenatal clinics.—The State department of health maintains six permanent prenatal clinics in the smaller towns and cities. The preschool section also supplies 75 non-State prenatal clinics with literature, record forms, and field service.

Midwifery.—A new law passed by the legislature in 1929 makes the secretary of health responsible for the supervision of all midwives in the State, except those in Philadelphia and Pittsburgh. The supervision to date has been limited to the midwives in 10 counties of the coal regions. The work is carried on by medical women. A total of 477 midwives in these 10 counties have been closely supervised, taught regularly in monthly classes, and have had postnatal follow-up visits of their cases by the State nurses. Every effort is made to eliminate the unlicensed midwife. In 1929 midwives assisted at 5,126 deliveries with a loss of 13 mothers and 140 babies exclusive of stillbirths.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported. The instillation of a silver-nitrate solution into the eyes of the new born is required.

Lying-in hospitals and orphanages.—Lying-in hospitals and orphanages are licensed by the department of welfare.

Child-health centers.—Two groups of child-health centers are maintained: Those under State control with a State nurse in charge and those conducted by other agencies, such as the Red Cross, visiting-nurse associations, community nurses, and tuberculosis workers. All may have the literature and record forms supplied by the department of health, and may also have visits from the field workers. On December 31, 1929, 135 State and 268 non-State centers were in operation. Exclusive of Philadelphia, the number of new babies registered in the State centers for the year 1929 was 9,366; in the non-State centers 24,256.

Health cars.—Two motor units, each with a staff consisting of two doctors, two dental hygienists, and two or more nurses, tour the rural areas during June, July, and August. In 1929, 124 itinerant motor clinics were held and 7,867 children were examined; of these, 2,380 were referred to their family physicians for the correction of defects. It is estimated that 50 per cent of the defects were corrected. Of the children examined, 5,963 had their teeth cleaned and mouths charted; 25,497 cavities were found.

May Day—child-health day.—“May Day—child-health day” is celebrated throughout the State in a wide variety of health undertakings. In 1929, 511 communities planned and executed special health programs. Over 551 extra preschool clinics were held chiefly

for the examination of prospective first-grade children. A total of 60,000 children was given toxin-antitoxin injections; 47,000 preschool children were examined by a physician or nurse. Over 21,500 of the defects found were reported corrected before autumn.

SCHOOL-HYGIENE SECTION

Personnel.—In 1930 the personnel of the school-hygiene section included a medical director, who was the deputy secretary of health; a supervisor, and an assistant supervisor of school sanitation; a full-time and 4 part-time medical supervisors; 415 part-time medical inspectors of schools; and 18 clerks and stenographers.

Activities.—The work of the school-hygiene section includes the medical inspection of school children throughout the State; the sanitary inspection of school buildings, including the making of recommendations to school boards of the improvements necessary to place the buildings, the heating and ventilating systems, the toilet facilities, etc., in proper sanitary condition; and the enforcement of smallpox vaccination rules. It is found by the medical inspectors that at the opening of the school term 1.3 per cent of the children have entered school without successful vaccination. These cases are reported by the inspectors and notice is served on each requiring vaccination or exclusion from school within 10 days. This is followed by a notice to each school board from the central office requiring the enforcement of these provisions. The result is that practically 100 per cent vaccination of school children is achieved, and that the State is becoming immune to smallpox among its native population.

School districts.—The State has been divided into school districts according to population, as follows:

First-class school districts are those with populations above 500,000, Philadelphia and Pittsburgh being the only examples of this class; second-class school districts are those with populations of 30,000 to 500,000, there being 18 second-class districts; third-class school districts are those with populations of 5,000 to 30,000, there being 215 third-class districts; fourth-class school districts are those with populations of less than 5,000, there being 2,346 fourth-class districts.

Medical inspection.—In the first, second, and third class districts the medical inspectors, who are appointed and paid by the local school authorities, work under the direction and supervision of the school-hygiene section of the State department of health. The five medical supervisors of the school-hygiene section perform this function. All school children are inspected annually. In the fourth-class school districts medical inspection of schools is made by inspectors appointed by, paid by, and working directly under the State department of health. School nurses are employed in all first and second class districts and in 60 per cent of the third-class school

districts. A number of fourth-class school districts employ their own school nurses, but in a large majority of districts nursing service is available only through the State department of health clinics. This service, however, is available rather generally in all counties.

DENTAL HYGIENE SECTION

Personnel.—The personnel of the dental hygiene section consisted in 1930 of a chief, a dental hygienist, and a secretary.

Activities.—The work of the dental section is largely educational. Local communities throughout the State are influenced to place dental hygienists on the teaching staffs of the schools. At the time the dental section was established no organized dental health service was available in the State. Between the years from 1920 to 1930, however, over 250 districts have inaugurated dental health education service in their school systems and, at the present time, are employing approximately 150 dental hygienists.

BUREAU OF NURSING

Personnel.—In 1930 the personnel of the bureau of nursing consisted of a director, an assistant director, 3 supervisors, 1 instructor, 150 nurses, and 6 clerks.

Activities.—The bureau of nursing with its splendid corps takes part in all lines of health work requiring nursing service and in nearly all the bureaus of the health department. Nurses take part in school inspections and the necessary follow-up work; assist at the various clinics; where necessary, are health, quarantine, and nuisance officers, maternity nurses, midwife advisers, liaison agents with civic organizations; and in the event of catastrophes take charge of the first-aid stations.

Eligibility requirements.—State public-health nurses must be graduates of a recognized training school, must be registered in the State, and must have had public-health training or its equivalent in experience.

Number of nurses.—There were 155 general public-health nurses in 1929. Thirty-five nurses act as health officers in addition to their regular duties.

BUREAU OF PUBLIC-HEALTH EDUCATION

Personnel.—In 1930 the personnel of the bureau of public-health education consisted of a chief, an assistant, and a secretary.

Bulletins.—An illustrated bulletin, issued bimonthly with a circulation of 27,000, reaches physicians in the State exclusive of Philadelphia and Pittsburgh, health officers, educators, teachers, and general readers. Fifty-two special bulletins were published and circulated in 1929.

Press service.—Weekly health talks are sent out to 365 newspapers, health officers, and other interested persons. News items are supplied weekly to the press.

Lectures.—Talks on health problems are given over the radio each week and platform addresses are given upon request.

Equipment.—The department of health owns a stereopticon, 100 slides on various subjects, 32 motion-picture films with projector equipment, and several portable exhibits for convention use.

Cooperation.—The State departments of health and of education cooperate in carrying out their respective programs.

BUREAU OF DRUG CONTROL

The bureau of drug control was established by an act of May 24, 1917.

Personnel.—In 1930 the staff of the bureau of drug control consisted of a chief, four inspectors, and three clerks.

Activities.—The bureau of drug control regulates the possession of and controls the dealing in, giving away, delivery, dispensing, administering, prescribing, and using of certain drugs. It is not the policy of the bureau to exercise its police function except in extreme cases. Its principal functions are to prevent drug addiction and to assist the unfortunates who have already become addicts. Inasmuch as the antinarcotic act imposes secrecy upon the personnel much of the detail work is not reported.

BUREAU OF MILK CONTROL

Personnel.—The staff of the bureau of milk control consisted in 1930 of a chief, eight district milk control officers, a secretary, and two clerks.

Activities.—The bureau, which was created in 1930, promotes the distribution of a clean, safe, public milk supply and the consumption of milk. Questions of quality or adulteration of milk are handled by the department of agriculture.

The work of the bureau includes the supervision of the sanitary quality of milk sold in townships of the second class and in municipalities without a local milk ordinance or inspection; the making of surveys of public milk supplies at the request of municipal officials or local civic organizations. The reports of these surveys contain requirements for local supervision; assistance to municipalities in the preparation of milk ordinances and to municipal milk inspectors in the performance of their duties; advice in the supervision of milk supplies for State-owned institutions; maintenance of a source of information for dairy farmers, milk plant operators, and milk consumers; and assistance to those who sell milk for human consumption in meeting

the requirements of the act of 1929 which requires them to obtain a permit from the State department of health unless the milk is sold in a municipality having and enforcing a milk ordinance equally as stringent as the State law. For this purpose the State has been divided into eight districts with a milk-control officer for each district. These officers live in their districts.

Pasteurization.—All milk not produced under the requirements of the State department of health for raw milk must be pasteurized.

Tuberculin testing.—The tuberculin testing of cattle is a condition for the legal sale of raw milk. This is a function of the department of agriculture.

Analysis.—A traveling milk laboratory is maintained with equipment similar to that used by progressive pasteurizing-plant operators to determine the quality of raw milk delivered from the farms.

Dairies.—Dairies are inspected by the State department of health.

TABLE 208.—Total budget, State legislative budget for health work, and budgets by bureaus, by years ¹

PENNSYLVANIA

Bureaus	1926	1927	1928	1929	1930
Total appropriation.....	² \$2,555,296	² \$2,631,428	² \$2,666,384	\$3,217,500	\$3,217,500
Total appropriation exclusive of tuberculosis sanatoria funds ³	1,377,835	1,449,190	1,491,736	1,577,120	1,577,120
State legislative appropriation ⁴	1,309,024	1,380,380	1,422,925	1,577,120	1,577,120
Executive bureau.....	55,627	54,575	64,414	52,760	52,760
Bureau of finance.....	155,536	188,300	178,088	191,118	191,118
Bureau of communicable diseases:					
Epidemiology.....	257,855	267,831	276,044	320,774	320,774
Tuberculosis control.....	51,163	45,255	44,472	41,242	41,242
Venereal disease control.....	40,927	39,085	30,174	30,635	30,635
Bureau of vital statistics.....	73,381	87,800	85,391	119,592	119,592
Bureau of laboratories.....	63,893	66,527	66,434	75,147	75,147
Bureau of engineering.....	88,337	127,442	136,393	115,340	115,340
Sanitary water board.....	65,915	58,542	69,280	96,000	96,000
Bureau of child health:					
Preschool hygiene.....	11,746	7,568	5,500	54,555	54,555
School hygiene.....	118,782	100,691	134,962	116,143	116,143
Dental hygiene.....	9,386	8,771	8,922	9,697	9,697
Bureau of nursing.....	290,720	299,022	293,617	284,344	284,344
Bureau of public health education.....	3,655	7,864	6,783	7,242	7,242
Bureau of drug control.....	22,102	21,106	22,450	22,674	22,674
Bureau of sanatoria and State clinics.....	1,085,898	1,060,358	1,027,154	930,698	930,698
Bureau of inspection.....				19,857	19,857
Bureau of milk control.....				20,000	20,000

¹ Figures not available by years from 1915 to 1926.

² Children's Bureau funds included. (See Table 209.)

³ Exclusive also of the hospital for crippled children.

⁴ Exclusive of all tuberculosis sanatoria funds and the hospital for crippled children.

TABLE 209.—Total appropriations for State department of health, by years

PENNSYLVANIA

Year	Total appropriation	Appropriation, exclusive of tuberculosis funds ¹	Source of funds and amounts				
			State legislature ²	U. S. Children's Bureau	Tuberculosis sanatoria ³	State hospital for crippled children	U. S. Public Health Service
1915	\$2, 225, 935	\$805, 269	\$805, 269	-----	\$1, 420, 666	-----	-----
1916	2, 225, 935	805, 270	805, 270	-----	1, 420, 665	-----	-----
1917	2, 642, 502	950, 412	950, 412	-----	1, 692, 090	-----	-----
1918	2, 642, 503	950, 413	950, 413	-----	1, 692, 090	-----	-----
1919	2, 667, 444	1, 275, 246	1, 275, 246	-----	1, 392, 198	-----	-----
1920	2, 667, 444	1, 275, 247	1, 275, 247	-----	1, 392, 197	-----	-----
1921	2, 684, 687	1, 400, 060	1, 400, 060	-----	1, 284, 627	-----	-----
1922	2, 684, 687	1, 468, 871	1, 400, 060	\$68, 811	1, 215, 816	-----	-----
1923	2, 156, 710	1, 216, 865	1, 139, 289	68, 811	939, 845	-----	\$8, 765
1924	2, 156, 710	1, 209, 132	1, 139, 290	68, 811	948, 578	-----	1, 031
1925	2, 592, 704	1, 440, 514	1, 371, 703	68, 811	1, 152, 190	-----	-----
1926	2, 555, 296	1, 377, 835	1, 309, 024	68, 811	1, 085, 898	\$91, 563	-----
1927	2, 631, 428	1, 449, 190	1, 380, 380	68, 811	1, 060, 358	121, 880	-----
1928	2, 666, 384	1, 401, 736	1, 422, 925	68, 811	1, 027, 154	147, 494	-----
1929	3, 217, 500	1, 577, 120	1, 577, 120	-----	1, 430, 698	209, 682	-----
1930	3, 217, 500	1, 577, 120	1, 577, 120	-----	1, 430, 698	209, 682	-----

¹ Exclusive also of the hospital for crippled children.² Exclusive of all tuberculosis sanatoria funds and the hospital for crippled children.³ Including new buildings, etc.

RHODE ISLAND

STATE PUBLIC HEALTH COMMISSION

Organization.—The State public health commission of Rhode Island, created in 1929, consists of five members appointed by the governor, with the approval of the senate. The members must be qualified electors.

Term of office and compensation.—The members serve for a period of five years; the term of one member expires each year. They receive a compensation of \$20 a meeting. No allowance is made for traveling expenses.

Meetings.—Regular monthly meetings are held and special meetings may be held at the request of the chairman. The number of meetings for which compensation is given is limited to 12 a year.

EXECUTIVE OFFICER

Legal qualifications.—The director of public health is the executive officer of the State department of health. He is elected by the commission from outside their number and is not a member of the commission. There are no legal qualifications for this office.

Term of office and salary.—The executive officer serves during the pleasure of the commission. He receives a yearly salary of \$6,000 and traveling expenses.

Rhode Island - Organization of the State Department of Health in 1930

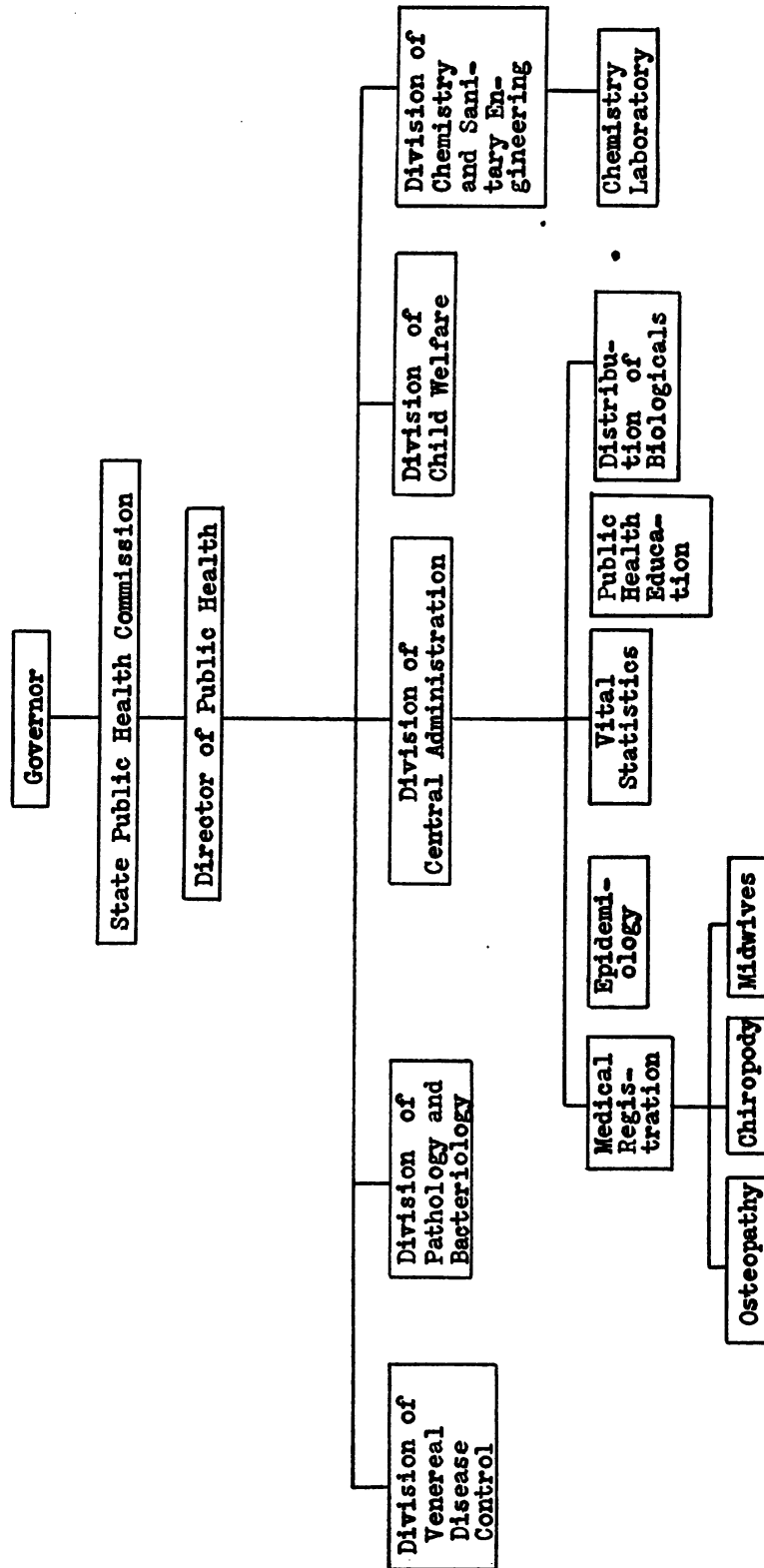


FIGURE 57

POWERS OF THE STATE HEALTH DEPARTMENT

Judicial, legislative, and executive powers.—The executive power of the State department of health is vested in the State public health commission and delegated to the director of public health. The State department of health has judicial, legislative, and executive powers concerning the prevention of pollution of public water supplies, sewage disposal, communicable diseases, quarantine, nuisances, enforcement of the medical practice law, and midwifery. Measures relating to the control of milk supplies and food adulteration are functions of the State food and drugs commission.

APPROPRIATIONS

The State legislature makes an annual appropriation to the State public health commission. The legislature meets in January of even years. The fiscal year of the department of health ends June 30.

TABLE 210.—*Divisions of the State department of health in 1930*¹

RHODE ISLAND

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of central administration.....	\$51,505	14	\$6,000	\$24,620	\$30,620
Division of venereal-disease control.....	8,460	2	3,000	2,510	5,510
Division of pathology and bacteriology.....	23,863	² 11	3,000	18,163	21,163
Division of chemistry and sanitary engineering.....	21,950	9	4,500	17,000	21,500
Division of child hygiene.....	23,720	10	3,500	14,725	18,225

¹ Total appropriation, \$129,498; total appropriation exclusive of tuberculosis sanatoria funds, \$129,498; State legislative appropriation, \$129,498.

² Officials included whose time is devoted to more than 1 activity.

DIVISION OF CENTRAL ADMINISTRATION

Personnel.—In 1930 the personnel of the division of central administration consisted of the director of public health, a physician for diphtheria immunizations, a nurse, two investigators, and nine clerks including those engaged in vital-statistics work.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed by the commission with the approval of the chairman and another member of the commission or of the director of public health.

Purchases.—Supplies are purchased by the directors of the various divisions.

Supervision.—The State department of health acts in an advisory capacity toward the local health boards. It may supersede a local organization in an emergency.

Reporting of diseases.—The control of communicable diseases is a function of the division of administration. Cases of communicable diseases are reported weekly by the local health officers to the State department of health.

Quarantine.—Quarantine measures are under the control of the local health officers.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—No emergency fund is provided for use in case of an epidemic.

Tuberculosis control.—No tuberculosis-control work is carried on by the State department of health. Clinics are conducted by the State tuberculosis association.

Sanatorium.—One State sanatorium is maintained by an appropriation made through a commission other than the State public health commission. The amount appropriated for the sanatorium in 1930 was \$305,460. A semiprivate sanatorium is conducted by the Saint Joseph Hospital.

Vital statistics.—The secretary of the board is ex officio the State registrar of vital statistics. The activities connected with the registration of births and deaths are carried on by the division of central administration.

Registration district.—Each city and town is a primary registration district in Rhode Island.

Local registrars.—The city or town clerks, who are elected or appointed by the city or town council, are the local registrars. In small towns the local registrar receives a fee of 25 cents, paid by the local government, for each record issued. Otherwise the local registrar receives no compensation other than his salary as town clerk.

Registration area.—Rhode Island was admitted to the registration area for deaths in 1890 and was one of the original States in the registration area for births.

Reporting of deaths.—In 1929 all the deaths occurring in the State were reported; all were reported by undertakers. Deaths must be reported to the local registrars at once and to the State registrar by the 20th of the month.

Legal standards.—The model law is not used, but an adequate law has been adopted. The standard certificate is not used in this State. The international list of the causes of death has been adopted.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, 91 per cent were reported by physicians, 8 per cent by midwives, and 1 per cent by others. Births

must be reported to the local registrar within forty-eight hours and to the State registrar by the 20th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks for returns.—Blanks for recording the returns are supplied by the State department of health and postage is provided by the local government.

Unlawful death.—In case death is thought to be caused by unlawful means, the medical examiner is notified.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians and midwives are licensed by the public health commission; undertakers are licensed by the State board of examiners in embalming.

Publicity.—Each division is responsible for its own publicity activities.

Press service.—The State department of health has regular press service.

Bulletin.—A monthly bulletin is issued by the division of child welfare and special pamphlets are issued from time to time.

Equipment.—The State department of health owns a stereopticon, slides, several motion-picture films, and portable exhibits.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

Distribution of biological products.—Biological products are distributed free to physicians by the central office. A detailed analysis of biologicals distributed during 1929 is given on page 103.

Medical registration.—In 1895 the State board of health was made ex officio a State board of medical registration. The investigation of illegal medical practice is supervised by the division of central administration.

DIVISION OF VENEREAL-DISEASE CONTROL

The division of venereal-disease control was established in 1918.

Personnel.—The staff in 1930 consisted of a director and a secretary.

Activities.—Through its director the board cooperated with the United States Public Health Service in establishing public clinics in endeavoring to reduce the spread of venereal disease through the enforcement of laws for the repression of prostitution, and in educating the public by means of illustrated lectures and the distribution of literature.

Clinics.—During 1929 six venereal-disease clinics were conducted under the supervision of the State department of health.

Treatments.—During 1929, 16,000 free treatments, of which 10,000 were salvarsan, were administered.

DIVISION OF PATHOLOGY AND BACTERIOLOGY

The division of pathology and bacteriology was established in 1914, following the enactment of a statute creating the position of State pathologist.

Personnel.—The director of public health is the State pathologist and supervises the pathological laboratory. In 1930 he was assisted by an assistant pathologist, a bacteriologist, an assistant bacteriologist, a serologist, a technician, four laboratory assistants, two of whom were part-time workers, and a stenographer.

Program.—It is the function of the division of pathology and bacteriology to make pathological or bacteriological examinations of cultures and other specimens submitted by physicians, and to carry on research. Through the advice and laboratory service of the division of pathology and bacteriology the State department of health seeks to cooperate with the physicians of the State, with medical examiners, school physicians, and medical directors of institutions, in the prompt diagnosis and effective treatment of contagious and other diseases.

Branch and private laboratories.—No branch laboratories have been established as yet. The State department of health has no supervision over the private laboratories in the State.

Special laboratory.—A chemical laboratory is also maintained by the health department.

Activities.—During 1929, 60,369 examinations were made by the laboratory. These included chiefly Wassermann tests, examinations of diphtheria cultures and tuberculosis sputa, uranalyses, and water analyses. A summary of the diagnostic activities is given on pages 99 to 100.

Fees.—No fee is charged for any service performed by the laboratory.

Biological products.—Biological products are not manufactured by the laboratory. Diphtheria antitoxin, typhoid vaccine, and silver-nitrate ampules are distributed free of charge through the division of central administration.

DIVISION OF CHEMISTRY AND SANITARY ENGINEERING

The division of chemistry and sanitary engineering was established as a separate division in 1914.

Personnel.—The staff of the division in 1930 consisted of a director, who is chief chemist and sanitary engineer, a diagnostic chemist, a toxicologist, an assistant sanitary engineer, a biologist, a laboratory assistant technician, a secretary, and a laboratory helper. The director of this division serves as sanitary engineer to the board of purification of waters, which has control of water pollution and sewage disposal. He is also sanitary engineer to the commissioners of shell fisheries, who have control over shellfish sanitation.

Public water supplies and sewage-disposal systems.—Plans for the installation of public water supplies and sewage-disposal systems do not need the approval of the State department of health before construction. Through the chemist and sanitary engineer the board of purification of waters keeps in close touch with the condition of the various public water supplies and other matters of general sanitation and is ready at all times to advise officials of cities and towns, manufacturers, and others as to means for obtaining safe drinking water and of preventing nuisances.

State board of purification of waters.—The control of water pollution and sewage disposal is under the State board of purification of waters, which makes surveys and investigations of pollution of public waters in the State, except those used exclusively for public water supplies.

Analysis.—Public water supplies are analyzed once a month; where there is a purification plant, analyses are made twice a month.

Inspection.—Water-purification plants are inspected once in two weeks; watersheds are inspected about once a year.

Bottled waters.—The control of bottled waters is a function of the food and drugs commission, which is not a part of the State department of health.

Ice industry.—No specific legislation has been passed governing the ice industry.

Swimming pools.—Swimming pools are inspected by the division of chemistry and sanitary engineering.

Camps and roadside water supplies.—Legislation has been passed concerning camps and roadside water supplies.

State shellfish commission.—Shellfish sanitation is a function of the State shellfish commission, which was established to survey, lease, inspect, and certify shellfish beds and to make necessary laboratory analyses. Laboratory work for the commission is done by the State department of health.

Chemical laboratory.—A laboratory for chemical analyses is maintained by the division of chemistry and sanitary engineering. It is the function of this laboratory to make regular examinations of all public water supplies and to make diagnostic chemical analyses of urine, blood, breast milk, etc.

DIVISION OF CHILD HYGIENE

The division of child hygiene was established in 1919.

Personnel.—The staff of the division of child hygiene in 1930 consisted of a director, a supervising nurse, seven field nurses, and a secretary.

Activities.—It is the function of this division to gather statistical material by surveys and other means on the health and welfare of children; to apply measures for reducing infant mortality; to seek to

improve registration of births; to aid in the organization of local group activities and to devise forms for their use; and to disseminate knowledge by lectures and talks, exhibitions, demonstrations, and the preparation and distribution of literature on the care of children. Through the director of this division, the commission is kept in touch with the health and physical condition of the children of the State and cooperates with schools, institutions, organizations, and other bodies engaged in child-welfare work.

Prenatal clinic.—The State department of health has established a prenatal clinic.

Midwifery.—Instruction and supervision are given to midwives by a subsidiary board under the public health commission.

Ophthalmia neonatorum.—Ophthalmia neonatorum is a reportable disease. Physicians and midwives are required to treat the eyes of the newborn with a prophylactic recommended and furnished by the public health commission.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are licensed by the public welfare commission.

Preschool hygiene.—The aim of the staff of the division of child hygiene is to visit every child under supervision seven times during the first year and twenty-seven times before the sixth year. During 1929, six preschool clinics were established and 1,100 children examined.

School hygiene.—No activities in school hygiene are carried on by the State department of health.

Eligibility requirements.—There are no eligibility requirements for public-health nurses.

TABLE 211.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

RHODE ISLAND

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$26,600	\$28,600	\$35,500	\$40,100	\$46,600	\$64,800	\$72,300	\$73,800
State legislative budget.....	26,600	28,600	35,500	40,100	46,600	64,800	72,300	73,800
Division of central administration.....	21,500	9,500	11,500	13,000	13,500	15,500	16,500	20,500
Division of pathology and bacteriology.....		8,500	10,400	13,000	15,500	17,500	18,000	18,000
Division of chemistry and sanitary engineering.....		5,500	7,500	9,000	12,500	15,000	15,000	16,000
Division of child hygiene.....						10,000	16,000	7,500
Division of venereal-disease control.....								7,500

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$85,362	\$101,800	\$109,328	\$109,476	\$105,711	\$121,376	\$109,600	\$129,498
State legislative budget.....	85,362	101,800	97,200	95,400	91,635	107,300	109,600	129,498
Division of central administration.....	22,873	28,000	28,000	35,100	34,295	36,425	37,500	51,505
Division of pathology and bacteriology.....	16,672	20,000	20,000	20,600	20,500	25,550	27,250	23,863
Division of chemistry and sanitary engineering.....	15,507	17,000	17,500	18,000	17,270	25,905	24,940	21,950
Division of child hygiene.....	16,000	20,000	32,038	24,076	24,276	24,276	11,420	23,720
Division of venereal-disease control.....	7,500	10,000	10,000	10,000	9,570	9,220	8,490	8,460

¹ United States Children's Bureau funds included. (See Table 212.)

TABLE 212.—Total appropriations for State department of health, by years

RHODE ISLAND

Year	Total appropriation	Source of funds and amounts		Year	Total appropriation	Source of funds and amounts	
		State legislature	U. S. Children's Bureau			State legislature	U. S. Children's Bureau
1915.....	\$26,600	\$26,600	-----	1923.....	\$85,362	\$85,362	-----
1916.....	28,600	28,600	-----	1924.....	101,800	101,800	-----
1917.....	35,500	35,500	-----	1925.....	109,328	97,200	\$12,038
1918.....	40,100	40,100	-----	1926.....	109,476	95,400	14,076
1919.....	46,600	46,600	-----	1927.....	105,711	91,635	14,076
1920.....	64,800	64,800	-----	1928.....	121,376	107,300	14,076
1921.....	72,300	72,300	-----	1929.....	109,600	109,600	-----
1922.....	73,800	73,800	-----	1930.....	129,498	129,498	-----

SOUTH CAROLINA

STATE BOARD OF HEALTH

Organization.—The South Carolina Medical Association, together with the attorney general and comptroller general of the State, compose the State board of health. This board acts as the sole adviser of the State in all questions involving the protection of the public health.

Executive committee.—The South Carolina Medical Association, at its first meeting after January 1, 1893, and every seven years since that date, has selected seven members, to be appointed by the governor, to constitute an executive committee. The attorney general and the comptroller general are ex officio members of the executive committee; the State pharmaceutical association and the State dental association nominate one member each, to be appointed by the governor. This committee of 11 members has power to act in the intervals of the meetings of the State board of health. Each one of the seven members appointed by the governor must be a licensed physician.

Term of office and compensation.—All medical members of the executive committee go out of office simultaneously at the end of seven years. The pharmacist is elected for six years and the dentist for five years. The members of the executive committee receive \$10 per day and actual traveling expenses while in session.

Number of meetings.—Four regular meetings of the committee are held each year. Special meetings may be called by the chairman.

EXECUTIVE OFFICER

Legal qualifications.—The executive committee elects the State health officer from outside its membership. He is ex officio the secretary and executive officer of the board and State registrar general. He must be a licensed practitioner of medicine, skilled in hygiene and public health.

Term of office and compensation.—The State health officer serves during the pleasure of the executive committee of the board. He receives \$5,000 a year as salary and \$1,000 for traveling expenses.

South Carolina - Organization of the State Department of Health in 1930

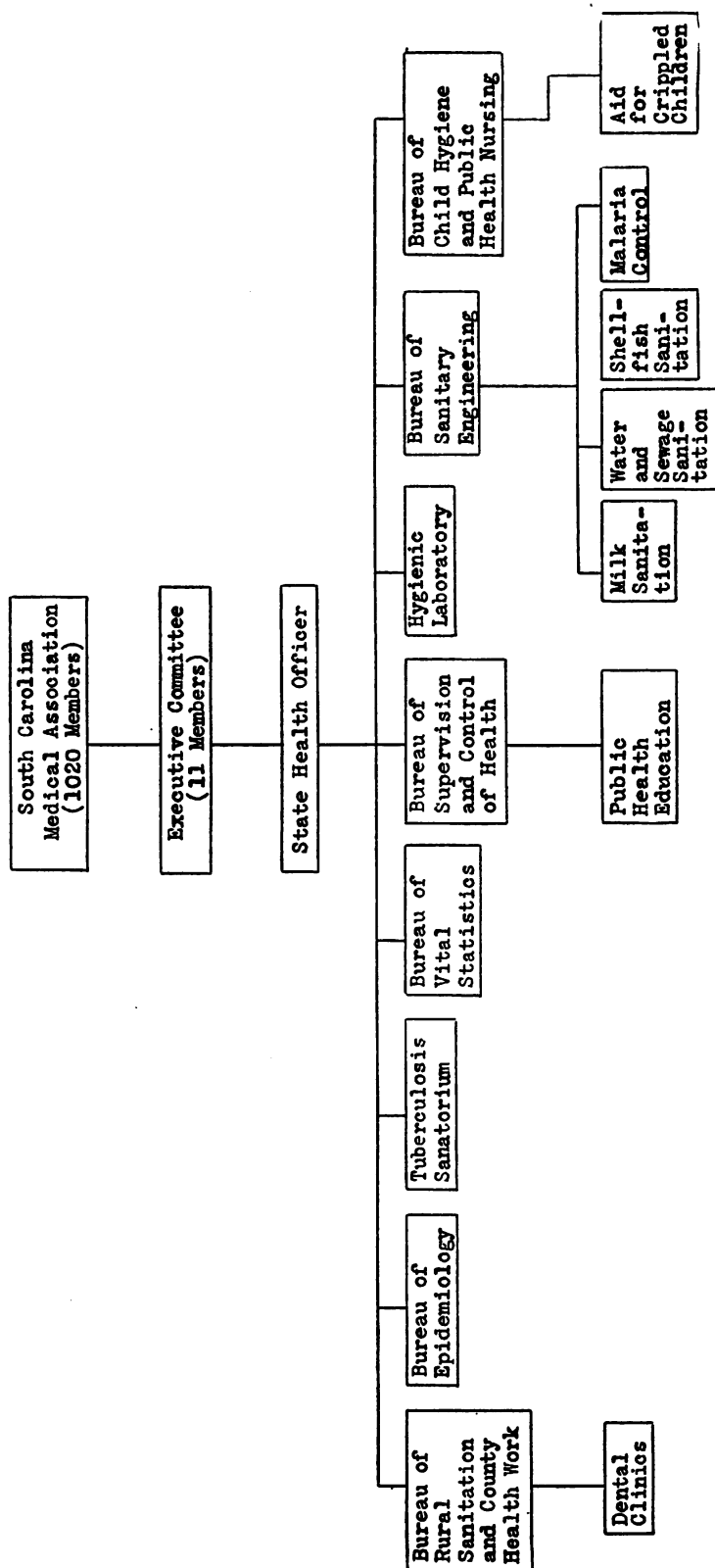


FIGURE 38

POWERS AND DUTIES OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has judicial, legislative, and executive powers concerning sanitation, water pollution, sewage disposal, milk supplies, nuisances, communicable diseases, quarantine, and midwives. The control of food adulteration is a function of the department of agriculture, commerce, and industries. Enforcement of the medical practice law is a function of the State board of medical examiners.

APPROPRIATIONS

Appropriations by bureaus are made each year. The legislature meets in January of even years. The fiscal year of the health department ends December 31.

TABLE 213.—Bureaus of the State department of health in 1930 ¹

SOUTH CAROLINA

Bureaus	Total budget, by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of supervision and control of health.....	\$10,570	3	\$5,000	\$3,600	\$8,600
Bureau of rural sanitation and county health work...	49,788	3	4,400	5,350	9,750
Bureau of epidemiology.....	54,220	² 5	(³)	8,850	8,850
Tuberculosis sanatorium.....	161,732	60	3,600	41,768	45,368
Bureau of vital statistics.....	8,305	4	3,000	3,900	6,900
Hygienic laboratory.....	12,530	5	3,000	7,900	10,900
Bureau of sanitary engineering.....	13,390	4	3,000	7,150	10,150
Bureau of child hygiene and public-health nursing...	9,970	3	3,000	4,200	7,200
Aid for crippled children.....	12,400	3	(⁴)	4,200	4,200

¹ Total appropriation, \$516,145; total appropriation exclusive of tuberculosis sanatorium fund, \$354,413; State legislative appropriation exclusive of tuberculosis sanatorium funds, \$171,863.

² The State health officer is included.

³ The State health officer is the director.

⁴ Director of bureau of child hygiene and public-health nursing is in charge.

BUREAU OF SUPERVISION AND CONTROL OF HEALTH

Personnel.—The office staff consisted in 1930 of the State health officer, a secretary, and a clerk.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel in the department.

Activities.—The central office carries out the policies of the State board of health, administers the funds, selects the personnel, supervises the activities of all divisions, distributes biological products, and carries out educational measures.

Disbursement of funds.—Funds are disbursed by the State health officer upon the approval of the heads of the various bureaus.

Purchases.—Supplies are purchased through the State health officer.

Publicity.—The publicity of the health department is directed by the State health officer.

Press service.—The health department sends items to the State and local papers.

Bulletin.—Pamphlets are issued from time to time.

Equipment.—The State department of health owns a stereopticon, 500 slides, 15 motion-picture films, and a portable exhibit.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

BUREAU OF RURAL SANITATION AND COUNTY HEALTH WORK

Personnel.—County health work was organized in 1920. The work in 1930 was carried on by a director, a secretary, and a clerk.

Health districts.—The executive committee appoints subboards of health which consist of two practicing physicians and one layman.

Supervision.—All local boards of health established are subject to the supervision and advice of the State board of health through its executive committee. Upon refusal or neglect to execute the orders of the State board of health, the members of the local board are subject to removal by the State board. All local boards of health in the several counties in the State outside of incorporated cities and towns are invested with the same powers and duties now imposed by law upon local boards of health in incorporated cities, towns, and villages

TABLE 214.—Data on full-time counties operating throughout 1929

SOUTH CAROLINA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel			
								Health officers	Inspectors	Nurses	Clerks
Greenwood...	1917	36,034	\$4,200	\$0.26	\$10,343,000	\$0.0009		1	1	1	1
Orangeburg...	1917	63,953	13,000	.20	12,844,000	.0010		1	1	2	1
Darlington...	1918	41,196	7,250	.18	10,507,000	.0007		1	1	1	1
Charleston...	1920	100,539	21,000	.21	40,515,000	.0005	Charleston (62,710)	1	2	1	1
Fairfield...	1920	23,685	6,500	.27	7,316,000	.0009		1	1	1	1
Newberry...	1920	32,762	9,000	.27	9,786,000	.0009		1	1	1	1
Cherokee...	1920	31,683	7,080	.22	9,282,000	.0008		1	1	1	1
Greenville...	1921	114,157	10,000	.09	27,710,000	.0004	Greenville (28,482)	1	1	1	1
Aiken...	1923	47,221	7,000	.15	12,425,000	.0006		1	1	1	1
Anderson...	1923	80,552	8,000	.10	21,448,000	.0004	Anderson (13,774)	1	1	1	1
Dillon...	1923	25,687	6,700	.28	5,604,000	.0012		1	1	1	1
Marion...	1924	26,871	5,700	.21	5,321,000	.0011		1	1	1	1
Beaufort...	1924	21,846	6,900	.32	4,182,000	.0016		1	1	1	1
Spartanburg...	1925	114,069	14,000	.12	32,745,000	.0004	Spartanburg (28,042)	1	1	2	1
Georgetown...	1925	21,723	6,100	.28	5,425,000	.0011		1	1	1	1
Horry...	1926	37,675	7,800	.21	4,166,000	.0019		1	1	1	1
Berkeley...	1927	23,449	6,900	.29	4,214,000	.0016		1	1	1	1
Richland...	1927	85,403	9,400	.11	29,201,000	.0003	Columbia (48,927)	1	1	2	1
Oconee...	1928	33,033	7,200	.22	6,619,000	.0011		1	1	1	1
Dorchester...	1928	24,733	5,400	.22	4,428,000	.0012		1	1	1	1
Total...		986,271	174,130	.18	264,081,000	.0007		20	10	22	9

Full-time county units.—There were 23 full-time units in this State at the close of 1930.

Dental hygiene.—Dentists are employed by the division of oral hygiene under the bureau of rural sanitation to take care of the dental defects of school and preschool children.

BUREAU OF EPIDEMIOLOGY

Personnel.—The work of the bureau of epidemiology in 1930 was carried on by the State health officer, assisted by an epidemiologist, a malariologist, an engineer, and a clerk.

Reporting of cases.—Local health officers and physicians report cases of communicable disease to the State department of health once a week.

Quarantine.—Quarantine measures are delegated to the control of the local health officers and physicians.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—No emergency fund is provided to be used in case of an epidemic.

Venereal-disease control.—No venereal-disease activities were carried on during 1929.

TUBERCULOSIS SANATORIUM

Personnel.—In 1930 one State tuberculosis sanatorium was conducted by the State board of health, under the supervision of a superintendent, four physicians, nurses, a housekeeper, etc. The sanatorium has a capacity of 278 beds. In 1930 an appropriation of \$161,732 for the sanatorium was included in the budget of the State department of health.

There are also 5 county sanatoria with a total capacity of 197 beds and 1 municipal sanatorium with 18 beds.

Clinics.—During 1929, 52 tuberculosis clinics were conducted in various counties by a clinician from the State sanatorium. In addition, five counties maintain their own clinics.

BUREAU OF VITAL STATISTICS

The bureau of vital statistics was established in 1914.

Personnel.—According to law the State health officer is the State registrar ex officio. In 1930 the staff of the bureau of vital statistics consisted of a director, a stenographer, a file clerk, and an index clerk.

Registration districts.—The cities and townships comprise the primary registration districts of the State.

Local registrars.—The clerk or health officer of a city is the local registrar. Otherwise the local registrars are chosen by the State

registrar. The local registrars are paid by the counties a fee of 25 cents for each certificate issued.

Registration area.—South Carolina was admitted to the registration area for deaths in 1916. Two examinations made by the United States Bureau of the Census during 1924 found only 86 per cent of the births reported. As the requirement of the Census Bureau is 90 per cent, the State was dropped from the registration area for births. A recheck was made in 1928, and South Carolina was readmitted to the registration area for births.

Reporting of deaths.—In 1929, 90 per cent of the deaths occurring in the State were reported; of these, about 50 per cent were reported by physicians, 20 per cent by undertakers, and 30 per cent by others. Deaths are reported to the local registrars at once and to the State registrar on the 10th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, about 40 per cent were reported by physicians, 40 per cent by midwives, and 20 per cent by others. Births are reported to the local registrars within 10 days and to the State registrar on the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The bureau of vital statistics supplies the blanks for recording the returns, and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are required and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners; midwives and undertakers are licensed by the State board of health.

HYGIENIC LABORATORY

In 1909 the State board of health was empowered by the general assembly to use State board of health funds for the establishment and maintenance of a laboratory.

Personnel.—The laboratory staff in 1930 consisted of a director, a secretary, a bacteriologist, and two technicians.

Branch laboratories.—No branch laboratories have been established by the State department of health.

Private laboratories.—The State department of health has no control over the private laboratories in the State.

Special laboratory.—To expedite and facilitate the examination of local oyster supplies and the water of oyster-bed areas in the State, a

boat lent by the State board of fisheries has been fitted up as a laboratory. Examinations are conducted along the entire coastal region of the State.

Activities.—In August, 1925, the hygienic laboratory added to its regular work the bacteriological examination of oysters, oyster-bed waters, municipal water supplies, and the chemical and bacteriological analyses of milk. During 1929, 72,569 examinations were made by the laboratory. These were mainly Wassermann tests, Kahn tests, Widal tests, examination of feces for intestinal parasites, and examination of tuberculosis sputa. A summary of the diagnostic activities of the laboratory during 1929 is given on pages 99 to 100.

Fees.—No charge is made for any service performed by the laboratory.

Biological products.—Until 1920 an appropriation for biological products was included in the general appropriation. Since that date it has been included in the appropriation for the hygienic laboratory. Only antirabic treatments are manufactured by the laboratory; all other biologicals are purchased. Diphtheria antitoxin, silver-nitrate ampules, and smallpox and typhoid vaccines are distributed free by the central administrative office. The amounts of biologicals issued during 1929 are recorded on page 103.

BUREAU OF SANITARY ENGINEERING

Organization.—During the first part of 1925 a reorganization in the engineering work of the State department of health was brought about and the activities were consolidated under the bureau of sanitary engineering. The activities now placed under this bureau are the control of water and sewage, shellfish and milk sanitation, malaria-control work and investigations, and the collection of morbidity statistics and related data.

Personnel.—The staff of the engineering division in 1930 consisted of a sanitary engineer, two assistant engineers, and a stenographer.

Water and sewage sanitation.—Plans for the construction and operation of water systems and sewerage plants must be submitted to the State department of health for approval.

Analysis and inspection.—Public water supplies are analyzed quarterly; purification plants are inspected once a year.

Bottled waters.—The State department of health has supervision over plants where waters are bottled for potable purposes.

Ice industry.—The State department of health must approve the sanitary condition of ice plants and the source of water used in the ice industry.

Impounded waters.—A permit must be obtained from the State board of health for the impounding of water. Inspections of the

operations of hydroelectric companies are made frequently by a representative of the State department of health to insure compliance with the regulations passed in 1922 governing the impounding of water.

Shellfish sanitation.—Cooperation with the board of fisheries in the inspection of oyster beds and oyster-shucking plants was assigned to the department of health by the legislature in 1924. Laboratory work is carried on by the State hygienic laboratory.

Milk sanitation.—A standard milk ordinance was adopted by the board in 1924. Practically all the cattle from which milk is obtained for larger towns have been tuberculin tested. The enforcement of the pasteurization laws, the laboratory examination of milk supplies, and the inspection of dairies come under the jurisdiction of this bureau.

Morbidity statistics.—In addition to its strictly engineering activities, the bureau of sanitary engineering was charged also with collection of morbidity statistics, inasmuch as this work was an outgrowth of the collecting of data on malaria and as adequate facilities for collecting these data did not exist elsewhere. A weekly collection of morbidity reports was begun March 1, 1925, by the bureau of sanitary engineering. Under the present system a card on which are listed 12 communicable diseases is sent out weekly to each physician. The physician is requested to report any new cases of these diseases in his practice during the week.

Camps, swimming pools, and roadside water supplies.—Sanitary inspections of tourist and summer camps are made. Swimming pools are inspected and analyses of their waters are made. Roadside water supplies are analyzed.

BUREAU OF CHILD HYGIENE AND PUBLIC-HEALTH NURSING

The first appropriation for the work of the bureau of child hygiene and public-health nursing was made in 1919.

Personnel.—In 1930 the personnel consisted of a director, a State supervisor of midwives, and an office secretary.

Prenatal clinics.—During 1929 four permanent clinics were conducted by the State department of health. In addition, 166 local clinics were maintained.

Instruction to midwives.—A course of 10 lectures and demonstrations is given to midwives by the maternity and infancy field nurses. These nurses review all classes twice a year, visit cases with the midwives, and regularly inspect their equipment and their homes.

Ophthalmia neonatorum.—Midwives are required to use silver nitrate in the eyes of the new born; doctors are required to report to the State department of health cases of inflamed eyes in newborn babies.

Lying-in hospitals and orphanages.—There are no lying-in hospitals in the State. Orphanages are licensed by the State board of public welfare.

Infant and preschool hygiene.—Since 1923 itinerant clinics for the examination of infants and children of preschool age have been held daily from April to November throughout the State. In some counties baby conferences are conducted each week by the county health officers and nurses. In 1929, 468 preschool clinics were held, and 6,541 children were examined.

Clinics.—In 1929, tonsil and adenoid clinics organized by communities were assisted and supervised by State nurses. Other clinics were conducted by county health units.

School hygiene.—All school children must have a physical examination during the first three months of the school year. This work is carried on by the bureau of child hygiene and public-health nursing of the health department. State nurses engaged in any special program in the counties do a limited amount of school work in order to establish contacts with the rural people.

Aid for crippled children.—Crippled children found through school inspections or infant and preschool clinics are cared for by the State appropriation for crippled children.

Public-health nurses.—All public-health nurses employed by State or county tuberculosis associations or by local Red Cross chapters are under the general supervision of this department and must send in monthly reports. Metropolitan Life Insurance nurses and many industrial nurses are also affiliated with the department.

Eligibility requirements.—A State public-health nurse must be a graduate of an accredited training school and have had public-health training or experience.

TABLE 215.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

SOUTH CAROLINA

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$43, 176	\$54, 816	^{1 2} \$75, 700	^{1 2 4} \$128, 051	^{1 2 4} \$175, 834	^{1 2 4} \$200, 553
Total budget, exclusive of tuberculosis-sanatorium funds.....	32, 176	40, 776	45, 700	86, 077	127, 834	135, 598
State legislative budget, exclusive of tuberculosis-sanatorium funds.....	32, 176	40, 776	36, 000	43, 500	77, 500	77, 946
Bureau of supervision and control of health.....	30, 176	30, 176	30, 176	30, 176	30, 176	30, 668
Bureau of vital statistics.....	5, 000	5, 000	5, 000	6, 000	8, 000	6, 000
Tuberculosis sanatorium.....	10, 000	14, 040	30, 000	41, 974	48, 000	64, 955
Full-time counties.....			^{1 2} 14, 400	^{1 2} 37, 300	^{1 2} 46, 559	^{1 2} 72, 801
Bureau of venereal diseases.....				⁴ 16, 477	⁴ 32, 953	⁴ 63, 088
Bureau of child hygiene and public-health nursing.....					10, 000	12, 440
Bureau of rural sanitation and county health work.....						² 6, 000
Bureau of epidemiology.....						4, 800
Hygiene laboratory.....						10, 750
Bureau of sanitary engineering.....						10, 000
Bureau of hotel inspection.....						6, 000
Aid to crippled children.....						

¹ Local funds included. (See Table 216.)

² Rockefeller Foundation funds included. (See Table 216.)

⁴ U. S. Public Health Service funds included. (See Table 216.)

TABLE 215.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

SOUTH CAROLINA—Continued

Bureau	1921	1922	1923	1924	1925
Total budget.....	124 \$270,316	124 \$263,302	124 \$283,872	124 \$356,291	11 \$ \$393,374
Total budget, exclusive of tuberculosis-sanatorium funds.....	208,376	195,012	229,797	257,691	299,774
State legislative budget, exclusive of tuberculosis-sanatorium funds.....	130,320	108,975	123,497	128,607	150,039
Bureau of supervision and control of health.....	14,120	13,295	14,869	15,884	16,884
Bureau of vital statistics.....	6,480	5,750	7,390	7,575	7,675
Tuberculosis sanatorium.....	61,940	68,290	54,075	98,600	93,600
Full-time counties.....	12 65,248	12 69,948	12 89,463	12 117,465	12 143,740
Bureau of venereal diseases.....	4 60,416	4 12,875	4 4,119	400	(⁶)
Bureau of child hygiene and public-health nursing.....	12,480	23,313	38,856	38,856	39,348
Bureau of rural sanitation and county health work.....	2 7,000	2 6,956	2 6,956	2 6,996	2 7,318
Bureau of epidemiology.....	4,800	4,800	5,200	5,200	5,400
Hygiene laboratory.....	33,969	37,690	38,191	38,711	45,830
Bureau of sanitary engineering.....	15,000	11,000	14,700	14,550	16,245
Bureau of hotel inspection.....	6,000	5,190	5,190	5,240	5,240
Aid to crippled children.....					10,000

Bureau	1926	1927	1928	1929	1930
Total budget.....	123 \$395,029	123 \$411,299	123 \$427,501	123 \$466,062	12 \$516,145
Total budget, exclusive of tuberculosis-sanatorium funds.....	299,029	322,949	336,573	359,917	354,413
State legislative budget, exclusive of tuberculosis-sanatorium funds.....	151,988	164,426	167,058	177,811	171,863
Bureau of supervision and control of health.....	11,884	9,705	10,078	10,585	10,570
Bureau of vital statistics.....	7,625	7,985	8,155	8,305	8,305
Tuberculosis sanatorium.....	96,000	88,350	90,928	106,145	161,732
Bureau of child hygiene and public-health nursing.....	16,416	13,000	10,120	9,670	9,970
Bureau of rural sanitation and county health work.....	27,413	27,255	35,338	43,338	49,788
Bureau of epidemiology.....	38,400	41,700	46,370	48,920	54,220
Hygiene laboratory.....	11,905	11,830	12,705	12,500	12,530
Bureau of sanitary engineering.....	21,105	23,420	16,090	13,690	13,390
Bureau of hotel inspection.....	5,240	1,380	(⁶)	(⁶)	(⁶)
Aid to crippled children.....	10,000	10,000	10,000	12,400	12,400

¹ Local funds included. (See Table 216.)² Rockefeller Foundation funds included. (See Table 216.)³ U. S. Children's Bureau funds included. (See Table 216.)⁴ U. S. Public Health Service funds included. (See Table 216.)⁵ Includes aid to full-time county-health units.⁶ Discontinued.TABLE 216.—*Total appropriations for State department of health, by years*

SOUTH CAROLINA

Year	Total appropriation	Appropriation exclusive of tuberculosis-sanatorium funds	Source of funds and amounts						Tuberculosis sanatorium
			State legislature ¹	U. S. Public Health Service	U. S. Children's Bureau	County	Rockefeller Foundation	Others	
1915.....	\$32,176	\$32,176	\$32,176						\$10,000
1916.....	54,816	40,776	40,776						14,040
1917.....	75,700	45,700	36,000			\$5,000	\$4,700		30,000
1918.....	128,051	86,077	43,500	\$16,477		14,900	11,200		41,974
1919.....	175,834	127,834	77,500	16,477		20,378	13,479		48,000
1920.....	200,553	135,598	77,946	16,477		36,300	4,875		64,955
1921.....	270,316	208,376	130,320	16,477		43,000	16,379	\$2,200	61,940
1922.....	263,302	195,012	108,975	8,238	\$13,797	50,800	12,902	300	68,290
1923.....	283,872	229,797	123,497	4,119	21,356	63,371	15,594	1,860	54,075
1924.....	356,291	257,691	128,607	3,400	21,356	80,320	15,633	8,375	98,600
1925.....	393,374	299,774	150,039	3,000	21,356	100,980	17,379	7,020	93,600
1926.....	395,029	299,029	151,988		21,356	99,500	5,800	20,385	96,000
1927.....	411,299	322,949	164,426		21,356	108,700	6,800	21,667	88,350
1928.....	427,501	336,573	167,058		21,356	115,300	7,800	25,059	90,928
1929.....	466,062	359,917	177,811		21,356	127,400	8,300	25,050	106,145
1930.....	516,145	354,413	171,863			153,650	9,100	19,800	161,732

¹ Exclusive of tuberculosis-sanatorium funds.

SOUTH DAKOTA

STATE BOARD OF HEALTH

Organization.—The State board of health consists of five members appointed by the governor, who in his commission of appointment designates a member of the board to act as superintendent. The members of the board elect their own president and vice president, and the superintendent is ex officio the secretary and executive officer of the board. The members of the State board of health must be skilled and capable physicians in good standing who have resided and practiced in the State not less than five years previous to their appointment. One member must be a homeopathic physician.

Term of office and compensation.—The members of the board serve for a period of five years; the term of one member expires each year. They receive \$5 a day and necessary traveling expenses when engaged in the performance of their duties as members of the board.

Meetings.—Four regular meetings are held each year and special meetings may be called by the superintendent of the board.

EXECUTIVE OFFICER

Legal qualifications.—The governor designates one member of the State board of health as the superintendent and executive officer. He acts also as the secretary of the board. To qualify as a member of the board of health he must be a skilled and capable physician and must have resided and practiced in the State not less than five years.

Term of office and compensation.—The superintendent serves for a term of five years and receives a yearly salary of \$3,200 and his necessary traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial power. It is authorized to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. The State department of health has no supervision over midwifery nor enforcement of the medical practice act. The prevention of the adulteration of food and the enforcement of milk and dairy laws is a function of the department of agriculture.

APPROPRIATIONS

A lump sum is appropriated each year by the State legislature for the State department of health. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

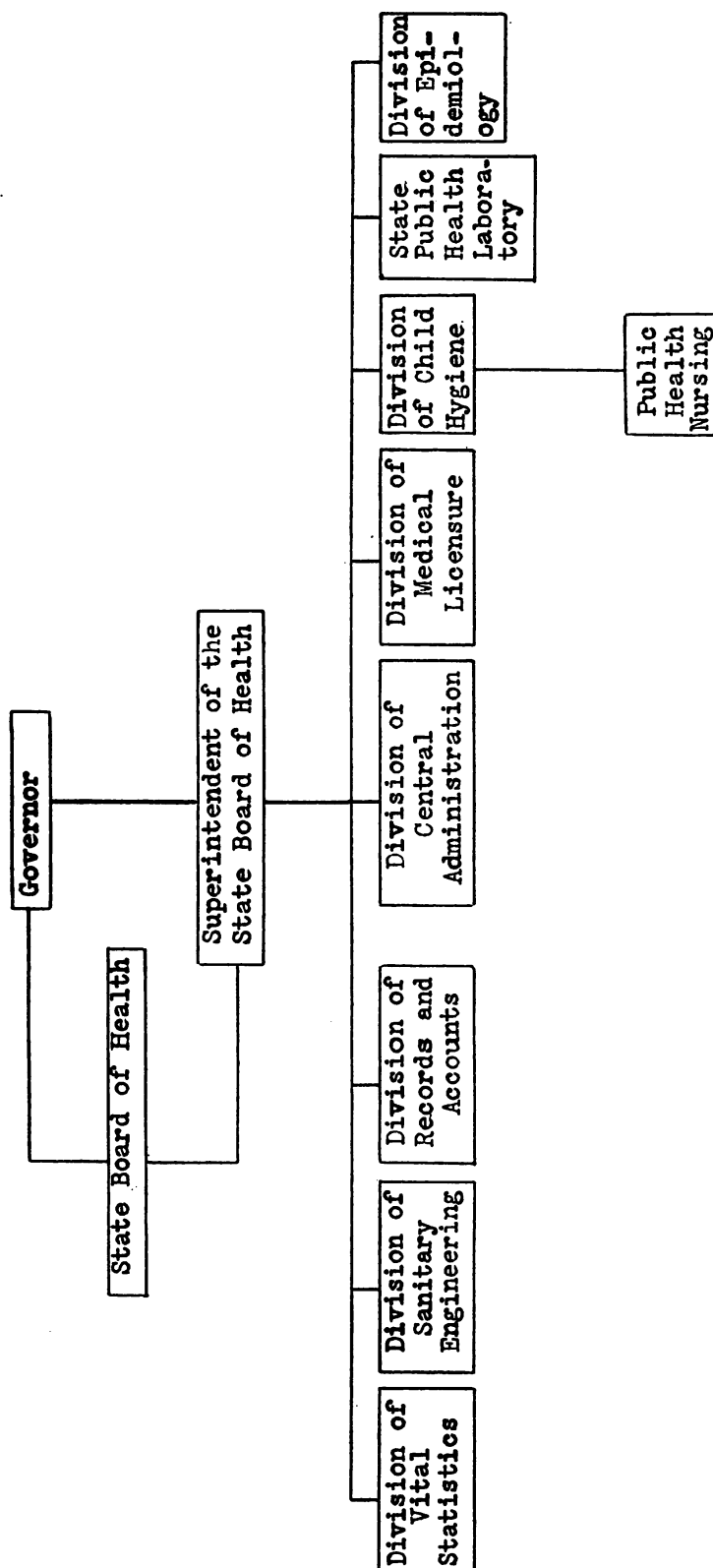
South Dakota - Organization of the State Department of Health in 1930

FIGURE 59

TABLE 217.—*Divisions of the State department of health in 1930*¹

SOUTH DAKOTA

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of central administration.....	\$11,681	2	\$3,200	\$1,200	\$4,400
Pennington County.....	10,680	4	3,900	4,500	8,400
Division of epidemiology.....	6,740	2	3,600	1,140	4,740
Division of medical licensure.....	1,300	1	1,200	—	1,200
Division of records and accounts.....	2,550	2	1,500	960	2,460
Division of vital statistics.....	5,070	² 4	(³)	3,480	3,480
State laboratory.....	11,698	2	2,625	2,000	4,625
Division of sanitary engineering.....	7,758	2	3,600	1,200	4,800
Division of child hygiene.....	8,861	2	2,700	1,200	3,900

¹ Total appropriation, \$66,338; total appropriation exclusive of tuberculosis sanatoria funds, \$66,338; State legislative appropriation, \$49,360; State legislative appropriation plus laboratory fees, \$51,058.

² Superintendent is included.

³ Superintendent is State registrar.

DIVISION OF CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the superintendent and a secretary.

Civil service.—The employees of the State department of health are not civil-service appointees. As yet a change in the State administration has not affected the tenure of personnel in the department.

Activities.—The superintendent supervises the work of the State department of health and is the State registrar of vital statistics.

Disbursement of funds.—Vouchers originate in the division of central administration and are forwarded to the State auditor. After being approved, they are paid by the State treasurer.

Purchases.—Supplies are purchased through requisitions sent to the State division of finance.

Local health organizations.—At the close of 1930 there was one full-time county health organization. There are also part-time county and city health departments.

Supervision.—The State department of health exercises supervisory and advisory powers over all local health organizations and appoints the part-time county health officers.

Publicity.—Due to the small appropriation granted, this division has been discontinued and each division now handles its own publicity.

Bulletin.—No bulletin is published but special pamphlets are issued from time to time.

Press service.—The State department of health enjoys the cooperation of the Associated Press, about half the newspapers in the State, and three special magazines.

Equipment.—The State department of health owns a stereopticon, 1,080 slides, 42 motion-picture films, and several motion-picture machines.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF EPIDEMIOLOGY

Personnel.—In 1930 the personnel of the division of epidemiology consisted of a director and a secretary.

Reporting of diseases.—County health officers are required to report cases of communicable diseases daily to the State department of health with the exception of cases of poliomyelitis, which must be reported at once.

Quarantine.—Quarantine measures are under the control of the local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—There is no emergency fund which may be used in case of a severe epidemic.

Tuberculosis.—The State department of health does not carry on any definite program for the control of tuberculosis and did not maintain any clinics or dispensaries in 1929.

Sanatorium.—One State tuberculosis sanatorium with a capacity of 240 beds is under the supervision of the State board of charities and corrections. The amount appropriated for the sanatorium in 1930 was \$181,000.

Venereal-disease clinics.—No venereal-disease clinics were conducted under the supervision of the State department of health in 1929.

DIVISION OF MEDICAL LICENSURE

Personnel.—The personnel of the division of medical licensure consisted in 1930 of a medical director.

Activities.—The activities of this division consist of the licensing of physicians in the practice of medicine, surgery, and obstetrics in the State and the establishing of reciprocity with other States.

DIVISION OF RECORDS AND ACCOUNTS

Personnel.—In 1930 the director of the division of records and accounts carried on the work with the assistance of a clerk.

Activities.—This division keeps all the accounts and records for the health department; prepares the budgets for the health department and the county health organizations, prepares and checks all vouchers before they are submitted to the State auditor, receives and transmits to the State treasurer all moneys received into the department for medical licensure fees, certified copy fees, and maternity home license fees, issues all certified copies of vital statistics records, and purchases all supplies and materials.

DIVISION OF VITAL STATISTICS

Personnel.—The superintendent of the State board of health is officially the State registrar of vital statistics. In 1930 he was assisted

by a director, who is also the director of the division of records and accounts, and two clerks.

Registration districts.—The county is the primary registration district in this State.

Local registrars.—The county clerks serve as the local registrars. They receive from the county commissioners a fee of 25 cents for each certificate issued.

Registration area.—South Dakota was admitted to the registration area for deaths in 1930, but has not yet been admitted to the registration area for births.

Reporting of deaths.—In 1929, about 90 per cent of all deaths occurring in the State were reported; of these, 90 per cent were reported by physicians and 10 per cent by others. Physicians must file death certificates with the justice of peace, who issues a burial permit and transmits the death certificate to the local registrar. Deaths are reported to the State registrar by the 15th of the month.

Legal standards.—The standard certificate and the international list of the causes of death are used in this State, but the model law has not yet been adopted.

Reporting of births.—In 1929, about 90 per cent of the births occurring in the State were reported; of these, 95 per cent were reported by physicians, 3 per cent by midwives, and 2 per cent by others. Attending physicians or midwives must make out a birth certificate within 30 days and transmit it to the local registrar within 5 days. In case no physician attends the birth, a responsible person must report the facts to the justice of peace, who must make out and transmit a birth certificate to the local registrar. Births are reported to the State registrar by the 15th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health provides the blanks for recording the returns and the county supplies the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner, who makes out and delivers the death certificate to the local registrar.

Burial permits.—Burial permits are necessary and are issued by the justice of peace.

Licensing.—Physicians are licensed by the State board of health; undertakers are licensed by the State embalmers' board. Midwives are not licensed.

STATE PUBLIC HEALTH LABORATORY

Personnel.—In 1930 the director and assistant director of the State public health laboratory were faculty members of the State university medical school.

Central laboratory.—The central laboratory is located at the university, but is maintained by the State department of health.

Branch and private laboratories.—There are no branch laboratories and the State department of health has no supervision over private laboratories in the State.

Food and drugs laboratory.—The food and drugs laboratory under the supervision of the department of agriculture is also located at the State university. Chemical analyses are made in this laboratory on request of the board of health.

Activities.—During 1929, 16,120 examinations were made by the central laboratory. These consisted mainly of Wassermann tests and examinations of tuberculosis sputa and of diphtheria cultures. A summary of the diagnostic activities of the laboratory is given on pages 99–100.

Fees.—Fees are charged for blood counts, parasitic examinations, examination of pathological tissues, urinalyses, examinations of stomach contents, and analyses of milk and water from private supplies. These fees are allocated to the laboratory.

Biological products.—Silver-nitrate ampules were the only biological products purchased during 1929. Distribution was free and was handled by the division of records and accounts. The amount issued is given on page 103.

DIVISION OF SANITARY ENGINEERING

Personnel.—The personnel of the division of sanitary engineering in 1930 consisted of a sanitary engineer and a secretary.

Public water supplies and sewerage systems.—The approval of the State department of health is necessary for the installation, alteration, or extension of public water supplies, water-purification plants, or sewage-disposal systems.

Analysis and inspection.—Public water supplies are analyzed and purification plants are inspected at irregular intervals.

Bottled waters.—The control of bottled waters is not a function of the State department of health.

Ice industry.—No regulations concerning the ice industry have been passed. Samples of ice are examined upon request. Natural ice is used almost exclusively and comes from a satisfactory source.

Camps and swimming pools.—Rules and regulations concerning the sanitary conditions of camps and swimming pools have been passed by the State department of health.

Roadside water supplies.—No legislation concerning roadside water supplies has been passed.

DIVISION OF CHILD HYGIENE

Personnel.—The staff of the division of child hygiene in 1930 consisted of a director and a secretary.

Prenatal clinics.—Itinerant prenatal clinics are conducted by the State department of health for about four months each year. During 1929, 88 such clinics were conducted and 82 women were examined.

Midwifery.—Midwives are not recognized in this State.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported and the person attending the birth should use such prophylactic measures as have been approved by the State department of health.

Lying-in hospitals and orphanages.—Lying-in hospitals are licensed by the State board of health. Orphanages are not licensed.

Preschool clinics.—Itinerant preschool clinics are operated by the division of child hygiene. During 1929, 2,184 infants and preschool children were examined at 88 preschool clinics.

School hygiene.—No special provision has been made for school hygiene activities. The director of the division of child hygiene makes inspections from time to time.

Public-health nursing.—The work of the division of public-health nursing was discontinued in the summer of 1921 but was reestablished in April, 1923. The law permits counties to appropriate funds for public-health nursing services.

Eligibility requirements.—A public-health nurse must be a graduate and registered nurse of the State and must have had at least a four months' course in public-health nursing in an accredited school or eight months' experience on a well-supervised public-health nursing staff.

TABLE 218.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

SOUTH DAKOTA

Division	1915	1916	1917	1918	1919	1920
Total budget.....					\$21,000	\$21,000
State legislative budget.....					21,000	21,000
Division of central administration.....						
State laboratory ¹	\$4,117	\$5,491	\$6,680	\$6,721	8,789	10,832
Division of medical licensure.....						
Division of sanitary engineering.....						
Division of education and publicity.....						
Division of vital statistics.....						
Division of child hygiene.....						
Division of records and accounts.....						
Full-time counties.....						
Division of epidemiology.....						

¹ Fees included. (See Table 219.)

TABLE 218.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

SOUTH DAKOTA—Continued

Division	1921	1922	1923	1924	1925
Total budget.....	\$45,900	¹ \$50,900	¹ \$55,093	^{1 2 3} \$70,092	^{1 2 3} \$78,799
State legislative budget.....	45,900	45,900	40,800	40,800	54,060
Division of central administration.....	3,570	3,496	5,154	4,826	4,901
State laboratory ⁴	10,921	12,995	12,994	16,158	16,397
Division of medical licensure.....	959	972	952	1,225	1,015
Division of sanitary engineering.....	3,408	5,004	5,078	5,164	4,739
Division of education and publicity.....	6,664	4,573	4,193	5,896	6,819
Division of vital statistics.....		4,236	4,891	5,746	4,978
Division of child hygiene.....		¹ 5,000	¹ 24,293	¹ 24,293	¹ 24,293
Division of records and accounts.....	1,500	1,500	2,953	2,999	1,543
Full-time counties.....				^{2 3} 20,000	^{2 3} 13,696
Division of epidemiology.....					

Division	1926	1927	1928	1929	1930
Total budget.....	^{1 2 3} \$88,592	^{1 2 3} \$81,373	^{1 2 3} \$57,909	^{1 2 3 4} \$62,666	^{2 3 4} \$66,338
State legislative budget.....	61,098	59,270	39,460	39,460	49,360
Division of central administration.....	15,891	10,727	11,608	10,786	11,681
State laboratory ⁴	13,392	13,322	11,469	11,819	11,698
Division of medical licensure.....	1,102	1,136	997	1,185	1,300
Division of sanitary engineering.....	4,432	5,385		³ 1,775	³ 7,758
Division of education and publicity.....	5,008	5,438	4,567	2,976	(⁶)
Division of vital statistics.....	3,958	5,472	5,107	5,762	5,070
Division of child hygiene.....	¹ 24,308	¹ 25,142	¹ 11,493	¹ 11,291	8,861
Division of records and accounts.....	1,672	1,963	3,188	3,069	2,550
Full-time counties.....	^{2 3} 13,224	^{2 3} 6,643	^{2 3} 9,480	^{2 3} 11,994	² 10,680
Division of epidemiology.....	³ 5,604	³ 6,144		³ 2,009	³ 6,740

¹ U. S. Children's Bureau funds included. (See Table 219.)² Local funds included. (See Table 219.)³ Rockefeller Foundation funds included. (See Table 219.)⁴ U. S. Public Health Service funds included. (See Table 219.)⁵ Fees included. (See Table 219.)⁶ Included under division of administration.TABLE 219.—*Total appropriations for State department of health, by years*

SOUTH DAKOTA

Year	Total appropriation	Source of funds and amounts							
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	County	County towns	Rockefeller Foundation	Board of education	Laboratory fees
1919.....	\$21,000	\$21,000							
1920.....	21,000	21,000							
1921.....	45,900	45,900							
1922.....	50,900	45,900		\$5,000					
1923.....	55,093	40,800		14,293					
1924.....	70,092	40,800		14,293	\$6,734	\$3,265	\$5,000		
1925.....	78,799	54,060		14,293	4,586	2,610	3,250		
1926.....	88,592	61,098		14,293	4,642	1,035	3,857	\$2,275	\$1,392
1927.....	81,373	59,270		14,293	2,828	731	1,677	1,252	1,322
1928.....	57,909	39,460		7,500	5,059	1,065	1,698	1,657	1,469
1929.....	62,666	39,460	\$2,300	7,500	7,570	600	2,517	900	1,819
1930.....	66,338	49,360	2,400		8,280		4,600		1,698

TENNESSEE

ADVISORY COUNCIL

Organization.—An advisory council to act on public health matters is provided by law. This council is to be composed of five physicians engaged in practice for not less than 10 years, and experienced in public health to be appointed at the discretion of the governor. As yet the governor has not seen fit to appoint such a body and therefore the council exists in name only.

Term of office and compensation.—The term of office is set as five years, the term of one member expiring each year. There is no per diem salary for the members of the advisory council.

Meetings.—The advisory council is authorized to hold quarterly meetings.

EXECUTIVE OFFICER

Legal qualifications.—The sole executive power of the State department of public health rests in the commissioner, who is appointed by the governor with the consent of the senate and who is authorized to exercise all the powers formerly vested in the State board of health. He must be a physician trained in the sanitary sciences.

Term of office and salary.—The commissioner serves during the pleasure of the governor. He receives a salary of \$5,000 a year and an appropriation of \$1,500 a year for traveling expenses within the State.

POWERS OF THE STATE DEPARTMENT OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—The State department of health has judicial power in the prosecution in court by the district attorney on statement of violations of the laws concerning sanitation in general, water pollution, and sewage disposal. The State department of health has authority to make rules and regulations only in matters concerning communicable diseases. However, this authority is given broad interpretation by the courts and the attorney general and covers most situations that arise concerning health matters. The health department is empowered to enforce all laws, rules, and regulations relating to health matters. In practice, however, most public health laws are enforced by the local boards of health. The control of food adulteration, drugs, and milk supplies is under the department of agriculture. Enforcement of the medical practice law and the control of midwifery are functions of the State board of medical examiners.

APPROPRIATIONS

The annual appropriation which is made by the State legislature to the State department of health is allotted by budgets to the

Tennessee - Organization of the State Department of Health in 1930

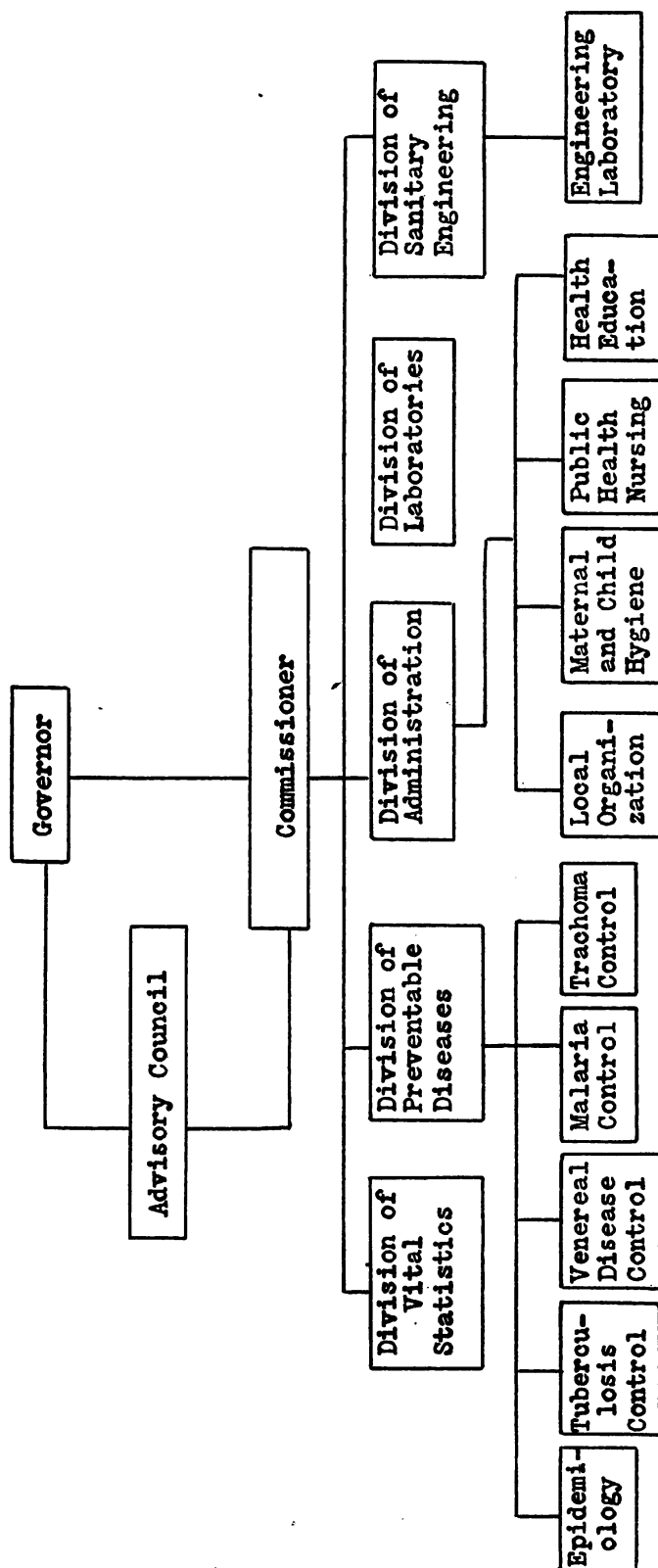


FIGURE 60

various divisions. The legislature meets in January of odd years. The fiscal year of the State department of health ends June 30.

TABLE 220.—*Divisions of the State department of health in 1930*¹

TENNESSEE

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of administration.....	\$20,100	4	\$5,000	\$6,600	\$11,600
Local organization.....	459,562	167	3,600	104,319	107,919
Maternal and child hygiene.....	77,200	11	3,600	47,280	50,880
Public-health education.....	27,380	3	3,000	2,100	5,100
Division of preventable diseases:					
Epidemiology.....	36,300	8	3,600	12,100	15,700
Tuberculosis control.....	74,330	12	3,900	20,328	24,228
Division of vital statistics.....	26,600	10	3,600	10,200	13,800
Division of laboratories.....	35,870	7	4,000	8,920	12,920
Division of sanitary engineering.....	27,250	5	3,750	9,600	13,350

¹ Total appropriation, \$784,572; total appropriation exclusive of tuberculosis sanatoria, \$784,572; State legislative appropriation, \$383,070.

DIVISION OF ADMINISTRATION

Organization.—Since 1925 the State department of public health has been completely reorganized in so far as its administrative activity is concerned. The principal structure of the department is now constituted by the central administrative group through which the four major divisions of vital statistics, laboratory, sanitary engineering, and preventable diseases function. The central administration is responsible for direct relations with local health organizations.

CENTRAL ADMINISTRATION

Personnel.—Included in the division of administration are the office of the commissioner of health, local organization work, clerical service (including budgets and accounts), maternal and child-hygiene work, public-health education, public-health nursing, and statistical service.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed on vouchers which are signed by the division chief, the commissioner, the division of finance of the State government, and the State comptroller. The State treasurer is the disbursing agent.

Purchases.—Supplies are purchased on requisitions issued through the purchasing agent of the State.

LOCAL ORGANIZATION

Personnel.—The personnel of local organization service in 1930 consisted of a director furnished by the United States Public Health

Service (part of his salary and traveling expenses paid by the State), an associate director for east Tennessee, an associate director for west Tennessee, two supervising sanitary officers, and a supervising nurse.

County health work.—In 1921 the legislature passed two bills. One authorized the county courts of the several counties to appropriate such sums as might be necessary for use in cooperating with the State department of health in carrying on health-demonstration work in the counties; and the second authorized the counties to establish and maintain county departments of health with county health officers, sanitary inspectors, visiting nurses, and clerical assistants, and to levy and collect taxes for such purposes.

TABLE 221.—Data on full-time counties operating throughout 1929.

TENNESSEE

County	Organized	1929 population	Total budget	Per-capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel			
								Health officers	Inspectors	Nurses	Clerks
Gibson.....	1919	46,214	\$13,508	\$0.29	\$25,894,000	\$0.0005	-----	1	1	2	1
Blount.....	1919	33,471	13,325	.40	24,378,000	.0005	-----	1	1	2	1
Montgomery.....	1920	31,023	12,720	.41	19,689,000	.0006	-----	1	1	2	1
Roane.....	1920	24,489	9,300	.38	14,623,000	.0006	-----	1	1	2	1
Davidson.....	1920	217,351	41,005	.19	198,573,000	.0002	Nashville (150,310)	1	3	7	1
Williamson.....	1921	22,905	12,375	.54	22,522,000	.0005	-----	1	1	2	1
Obion.....	1923	29,014	10,695	.37	29,353,000	.0004	-----	1	1	1	1
Sevier.....	1923	20,674	12,087	.58	8,675,000	.0014	-----	1	1	3	1
Rutherford.....	1924	32,366	36,475	1.13	25,490,000	.0014	-----	1	2	6	2
Weakley.....	1925	29,442	9,000	.31	20,790,000	.0004	-----	1	1	1	1
Dyer.....	1926	31,261	11,400	.36	17,683,000	.0006	-----	1	2	1	1
Hamilton.....	1926	155,140	19,200	.12	142,587,000	.0001	Chattanooga (113,605)	1	3	2	1
Lauderdale.....	1926	23,213	10,000	.43	15,101,000	.0007	-----	1	1	1	1
Shelby.....	1926	298,159	37,140	.12	276,087,000	.0001	Memphis (244,062)	3	6	4	2
Bradley.....	1927	22,450	9,500	.42	11,392,000	.0008	-----	1	1	1	1
Lake.....	1927	10,344	9,590	.93	7,743,000	.0012	-----	1	1	1	1
Washington.....	1927	44,627	10,000	.22	26,246,000	.0004	Johnson City (23,818)	1	1	1	1
Sullivan.....	1928	49,606	10,000	.20	25,563,000	.0004	Bristol (11,611) Kingsport (11,290)	1	1	1	1
Wilson.....	1928	24,162	9,500	.39	21,905,000	.0004	-----	1	1	1	1
Carter.....	1928	28,449	10,000	.35	8,050,000	.0012	-----	1	1	1	1
Greene.....	1928	34,889	9,300	.27	20,170,000	.0005	-----	1	1	1	1
Monroe.....	1928	21,448	9,300	.43	11,928,000	.0008	-----	1	1	1	1
Knox.....	1928	151,608	16,960	.11	126,482,000	.0001	Knoxville (103,000)	1	2	2	1
Total.....	-----	1,382,305	342,360	.25	1,100,924,000	.0003	-----	25	35	46	24

Organized counties.—At the close of 1930, there were 41 full-time county health organizations in operation. The salaries of the county health officers ranged from \$2,700 to \$4,800; those of county health inspectors, from \$1,320 to \$1,800; those of county health nurses, from \$1,200 to \$2,000; and those of clerks, with salaries ranging from \$540 to \$900.

Supervision.—The State department of health acts in a supervisory capacity toward the local health organizations and participates in the budgets of all except city organizations. Local health officers are required to enforce the rules and regulations of the State department of health. If they neglect or fail to perform these duties, the State department of health may institute necessary measures and the local government must pay the expenses thereby incurred.

Special appropriation.—An annual appropriation of \$135,000 is made for State aid to county health units.

MATERNAL AND CHILD HYGIENE

Personnel.—The personnel consisted in 1930 of the director, a clinician, and two field nurses.

Activities.—The State acts in an advisory capacity in maternal and child hygiene work, which is carried on chiefly by local health departments. Dental hygiene and diagnostic service for crippled children are part of the child-hygiene work.

Prenatal clinics.—Facilities for prenatal examinations are available only through the local health department.

Midwifery.—Supervision of and instruction to midwives is given by the full-time county health organizations.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum are reportable. The injection of a 1 per cent solution of silver nitrate in the eyes of the new born is required by law.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are licensed by the State department of institutions.

Child-hygiene program.—The child-hygiene program in Tennessee is carried out by the local health departments with financial assistance and advice from the State department of health.

School hygiene.—The medical examination of school children is conducted by local officials.

Crippled children.—The 1929 legislature passed an act to provide for the care, treatment, and education of physically handicapped or crippled children. The State department of health is authorized to organize and conduct local public diagnostic and operative clinics for such children and empowered to carry on a State program of convalescent care and follow-up work as part of its general program of public-health work.

PUBLIC-HEALTH NURSING

Public-health nursing.—The administration of public-health nursing is a function of that division to which the nurse is assigned. The State supervising nurse has general charge over all nursing service in cooperation with the division directors responsible for the activities in which the nurses are engaged.

Eligibility requirements.—A public-health nurse must be a graduate of high school and an accredited nursing school, and must have had a course in public health.

PUBLIC-HEALTH EDUCATION

Personnel.—The personnel in 1930 consisted of a director, an associate for school-health education, an associate for general-health education, a printer, and an operator for the motion-picture apparatus.

Press service.—Daily items are sent to each paper in the State.

Bulletins.—A monthly bulletin is published by the State department of health, and a series of seven special pamphlets were issued in 1929.

Equipment.—The State department of health owns two stereopticons, a motor motion-picture unit, a film and slide library, and two or three portable exhibits.

Cooperation.—The State department of health and the commissioner of education cooperate in publishing a health bulletin on communicable diseases for use in the schools.

Broadcasting.—Broadcasting is used as a special publicity method.

DIVISION OF PREVENTABLE DISEASES

Organization.—This division is responsible for work done in epidemiology, tuberculosis control, venereal disease control, malaria control, and trachoma control. Each service is in charge of a chief who in turn is responsible to the division director.

EPIDEMIOLOGY

Personnel.—The personnel consisted in 1930 of the epidemiologist and a communicable disease clinician.

Reporting of diseases.—Cases of communicable disease are reported each week to the State department of health by physicians and county health officers. Where there is no local health organization the physicians report directly to the State department of health.

Quarantine.—Quarantine measures are carried out by the local health officers.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children. It is controlled by local legislation.

Emergency fund.—An emergency fund of \$2,500 may be used at the discretion of the governor in case of an epidemic.

TUBERCULOSIS CONTROL

Personnel.—The personnel consisted in 1930 of 3 clinicians and 10 field nurses.

Activities.—The program consists of case finding and nursing follow-up service in cooperation with the local health agencies and practicing physicians. During 1929, 1,119 itinerant clinics were held by the health department and 14,386 patients treated.

Sanatorium.—There is no State sanatorium. Four municipal sanatoria have a capacity of 900 beds, and 4 private or semiprivate sanatoria have a capacity of 92 beds.

Clinics.—No tuberculosis clinics were conducted by the State department of health during 1929.

VENEREAL DISEASE CONTROL

Personnel.—The plan proposed for venereal disease control work provides for a supervising clinician in charge. In 1930, however, a director was furnished by the United States Public Health Service.

Activities.—Work in venereal disease control is a function of the local health organizations.

Clinics.—No venereal disease clinics are subsidized by the State but cities and county health units maintain their own.

Treatments.—No treatments were administered by the State department of health during 1929, but the State provides free arsenicals up to the value of \$1,200 per year.

MALARIA CONTROL

Personnel.—The personnel for malaria control work consisted in 1930 of one engineer and a part-time malariologist. The State department of health serves essentially as a consultant to the local health departments which carry out control measures.

TRACHOMA CONTROL

Activities.—A field survey to determine the prevalence of trachoma is being made by an associate epidemiologist. A cooperative plan of control, providing for field clinics to take care of the milder types of trachoma and for the hospitalization of the more acute and chronic forms, is conducted in cooperation with the United States Public Health Service.

DIVISION OF VITAL STATISTICS

Personnel.—The commissioner of health is the State registrar of vital statistics. In 1930 the personnel of the division of vital statistics consisted of a deputy who acted as division director, assisted by 10 clerks.

Registration districts.—The cities, incorporated towns, and civil districts are the primary registration districts of the State.

Local registrars.—The local registrars are appointed by the State registrar. The county pays a fee of 25 cents for each record issued.

Registration area.—Tennessee was admitted to the registration area for deaths in 1917 and to the registration area for births in 1927.

Reporting of deaths.—In 1929 over 90 per cent of the deaths occurring in the State were reported; of these, 95 per cent were reported by undertakers and 5 per cent by others. Deaths must be reported

before burial to the local registrar and by the 10th of the succeeding month to the State registrar.

Legal standards.—The model law, standard certificate, and international list of the causes of death are used in the State.

Reporting of births.—In 1929 over 90 per cent of the births occurring in the State were reported; 87.6 per cent were reported by physicians, 12 per cent by midwives, and 0.4 per cent by others. Births must be reported within 10 days to the local registrar and by the 10th of the succeeding month to the State registrar.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks and the postage for recording the returns.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner is notified.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State board of embalmers. Midwives are not licensed.

DIVISION OF LABORATORIES

Personnel.—The personnel of the central laboratory in 1930 consisted of a director, an associate director, a chemist, two technicians, a secretary, and a diener.

Branch laboratories.—Four branch laboratories, located in Knoxville, Memphis, Chattanooga, and Johnson City, are financed through the cooperation of the State and the local laboratory.

Private laboratories.—The State department of health has no supervision over private laboratories, but approves methods for making examinations for release from quarantine.

Engineering laboratory.—The division of sanitary engineering maintains a small laboratory for testing sand for sand filters.

Activities.—During 1929, 78,486 specimens were examined by the laboratory. The chief activities were Wassermann tests, examinations of diphtheria cultures, malaria blood smears, and tuberculosis sputa and milk and water analyses. A summary of the diagnostic activities of the laboratory is given on pages 99 to 100.

Fees.—No charge is made for any service performed by the laboratory.

Biologicals.—Typhoid vaccine, antirabic sera, and silver-nitrate ampules are manufactured by the laboratories. The typhoid vaccine and silver-nitrate ampules are distributed free of charge to physicians and county health officers; the rabies treatments are sold at cost. Diphtheria toxin-antitoxin and smallpox vaccine are issued free also. Biological products are distributed through the division of preventable

diseases. A detailed analysis of the biologicals distributed during 1929 is given on page 103.

Research.—In 1929 research was carried on for the purpose of improving laboratory technique.

DIVISION OF SANITARY ENGINEERING

Personnel.—The staff of the division of sanitary engineering in 1930 consisted of a director, three associate engineers, a milk specialist, and a secretary.

Public water supplies.—Plans for the construction of public water supplies must be submitted to the State department of health for approval.

Analysis.—Public water supplies are analyzed once a month. Private supplies are analyzed upon request.

Inspection.—Water-purification plants are inspected twice a year and oftener if necessary.

Bottled waters.—No specific legislation has been passed governing the bottling of waters for potable purposes.

Ice industry.—No regulations have been passed concerning the ice industry.

Sewage-disposal systems.—Plans for the construction, alteration, or extension of sewage-disposal systems must be submitted to the State department of health for approval.

Camps and roadside water supplies.—As yet the State department of health has not passed any rules or regulations concerning the sanitation of camps and roadside water supplies.

Swimming pools. Swimming pools are subject to local, not state-wide, regulations. Where regulated locally or upon request, plans must be submitted to the State department of health, and inspections are made twice a year and oftener if necessary.

Laboratory.—A small laboratory is maintained by this division for testing sand for sand filters.

Milk sanitation.—A milk specialist acts in a consulting capacity to municipalities which have adopted the standard milk ordinance. In addition he exercises strict supervision over enforcement wherever this ordinance is passed.

TABLE 222.—*Total budget, State legislative budget for health work, and budgets by divisions, by years*

TENNESSEE

Division	1915	1916	1917	1918
Total budget.....	1 2 \$28, 135	1 2 \$29, 685	1 2 \$45, 340	1 2 \$45, 339
State legislative budget.....	21, 675	22, 425	35, 250	35, 250
Division of administration.....	7, 000	7, 000	13, 125	13, 125
Division of local health work.....	2 1, 550	2 3, 100	2 5, 000	2 5, 000
Full-time counties.....	1 2 9, 085	1 2 9, 085	1 2 15, 090	1 2 15, 090
Division of vital statistics.....	8, 000	8, 000	8, 750	8, 750
Division of laboratories.....	2, 500	2, 500	3, 375	3, 375
Division of sanitary engineering.....				
Veneral-disease control.....				
Division of child hygiene and public health nursing.....				
Division of epidemiology.....				
Division of health education.....				
Local organization.....				
Tuberculosis control.....				

Division	1919	1920	1921	1922
Total budget.....	1 2 3 \$114, 714	1 2 3 \$116, 264	1 2 3 \$127, 720	1 2 3 4 \$139, 355
State legislative budget.....	47, 535	48, 310	78, 295	77, 602
Division of administration.....	14, 031	14, 031	14, 650	14, 650
Division of local health work.....	2 5, 900	2 7, 450	2 9, 385	2 8, 000
Full-time counties.....	1 2 34, 873	1 2 34, 873	1 2 26, 430	1 2 4 26, 430
Division of vital statistics.....	12, 375	12, 375	10, 900	12, 100
Division of laboratories.....	6, 750	6, 750	2 12, 245	2 12, 245
Division of sanitary engineering.....	1 2 3 6, 342	1 2 3 6, 342	1 2 13, 685	1 2 13, 885
Veneral-disease control.....	3 34, 443	3 34, 443	3 43, 175	3 35, 896
Division of child hygiene and public health nursing.....				1 4 13, 600
Division of epidemiology.....				
Division of health education.....				
Local organization.....				
Tuberculosis control.....				

Division	1923	1924	1925	1926
Total budget.....	1 2 3 4 \$187, 935	1 2 3 4 \$171, 086	1 2 3 4 6 \$236, 504	1 2 3 4 6 \$286, 008
State legislative budget.....	87, 621	88, 563	129, 212	137, 518
Division of administration.....	15, 950	15, 930	15, 000	18, 000
Division of local health work.....	2 7, 200	2 9, 283	2 9, 914	(10)
Full-time counties.....	1 2 4 57, 682	1 2 4 57, 682	1 2 4 79, 852	(10)
Division of vital statistics.....	15, 383	14, 983	2 18, 650	2 14, 030
Division of laboratories.....	2 17, 767	2 20, 234	2 22, 895	2 21, 020
Division of sanitary engineering.....	13, 171	13, 171	15, 100	2 30, 772
Veneral-disease control.....	2 23, 630	2 2, 610	6 2, 773	(10)
Division of child hygiene and public health nursing.....	1 4 37, 173	1 4 37, 173	1 4 56, 832	1 4 52, 795
Division of epidemiology.....			2 10, 250	(10)
Division of health education.....			5, 300	5, 300
Local organization.....				1 2 3 6 144, 088
Tuberculosis control.....				

Division	1927	1928	1929	1930
Total budget.....	1 2 3 4 5 6 \$393, 403	1 2 3 4 5 6 \$499, 434	1 2 3 4 5 6 7 \$637, 858	1 2 3 4 5 6 9 \$784, 572
State legislative budget.....	159, 559	241, 620	311, 615	383, 070
Division of administration.....	2 19, 600	21, 200	23, 200	20, 100
Division of local health work.....	(10)	(10)	(10)	(10)
Full-time counties.....	(10)	(10)	(10)	(10)
Division of vital statistics.....	2 5 17, 919	2 5 22, 626	2 5 23, 592	2 5 8 26, 600
Division of laboratories.....	2 22, 820	2 25, 733	2 31, 870	2 35, 870
Division of sanitary engineering.....	2 25, 543	2 22, 200	2 25, 725	2 27, 250
Veneral-disease control.....	(10)	(10)	(10)	(10)
Division of child hygiene and public health nursing.....	1 4 56, 781	1 4 66, 868	1 4 63, 434	1 7 77, 200
Division of epidemiology.....	2 5, 700	2 11, 850	2 24, 875	2 36, 300
Division of health education.....	5, 950	6, 600	7 9, 780	7 27, 360
Local organization.....	1 3 6 216, 590	1 3 6 277, 358	1 3 6 390, 382	1 2 3 7 459, 562
Tuberculosis control.....	22, 500	45, 000	45, 000	2 9 74, 330

1 Local funds included. (See Table 223.)

2 Rockefeller Foundation funds included. (See Table 223.)

3 United States Public Health Service funds included. (See Table 223.)

4 United States Children's Bureau funds included. (See Table 223.)

5 Federal Census Bureau funds included. (See Table 223.)

6 American Social Hygiene Board funds included. (See Table 223.)

7 Commonwealth funds included. (See Table 223.)

8 Tuberculosis association funds included. (See Table 223.)

9 Rosenwald funds included. (See Table 223.)

10 Combined under local organization.

TABLE 223.—Total appropriations for State department of health, by years

TENNESSEE

Year	Total appropriation	Source of funds and amounts												
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Federal Census Bureau	County	American Red Cross	Rockefeller Foundation	American Social Hygiene Board	Balance brought forward	Commonwealth fund	Fees	Tuberculosis Association	Rosenwald fund
1915.....	\$28,135	\$21,575	-----	-----	-----	\$1,950	-----	\$4,610	-----	-----	-----	-----	-----	-----
1916.....	29,685	22,425	-----	-----	-----	1,950	-----	5,310	-----	-----	-----	-----	-----	-----
1917.....	45,340	35,250	-----	-----	-----	2,902	-----	2,187	-----	-----	-----	-----	-----	-----
1918.....	45,339	35,250	-----	-----	-----	2,902	-----	7,187	-----	-----	-----	-----	-----	-----
1919.....	114,714	47,535	\$23,394	-----	-----	21,372	\$5,000	17,412	-----	-----	-----	-----	-----	-----
1920.....	116,264	48,310	23,394	-----	-----	21,372	5,000	18,187	-----	-----	-----	-----	-----	-----
1921.....	127,720	78,295	14,759	-----	-----	17,261	-----	10,126	-----	\$7,279	-----	-----	-----	-----
1922.....	139,355	77,602	14,759	\$18,500	-----	19,067	-----	9,427	-----	-----	-----	-----	-----	-----
1923.....	187,955	87,521	2,004	23,381	-----	35,863	-----	18,166	-----	21,020	-----	-----	-----	-----
1924.....	171,086	88,563	2,004	22,981	-----	35,863	-----	21,675	-----	-----	-----	-----	-----	-----
1925.....	236,564	129,212	7,639	32,968	-----	43,627	-----	22,493	\$625	-----	-----	-----	-----	-----
1926.....	286,008	137,518	11,550	25,768	-----	85,615	-----	24,057	1,500	-----	-----	-----	-----	-----
1927.....	393,403	189,569	15,621	25,768	\$1,004	135,728	-----	24,213	1,500	-----	-----	-----	-----	-----
1928.....	499,434	241,620	36,820	25,767	2,836	164,064	-----	26,827	1,500	-----	-----	-----	-----	-----
1929.....	837,858	311,615	39,920	12,884	2,400	235,935	-----	26,469	750	-----	\$7,885	-----	-----	-----
1930.....	784,572	383,070	27,920	-----	2,400	257,122	-----	28,800	-----	-----	54,080	\$1,800	\$2,500	\$26,880

TEXAS

ORGANIZATION

History.—In 1891 the Texas quarantine department was established; in 1903 the legislature renamed the department, calling it the department of public health and vital statistics, but making no appropriation for the latter. Provision was made for a chemist to analyze foods and medicines for adulteration; laws were passed restricting the sale of cocaine and morphine. In 1906 the health department was reorganized under four divisions: Sanitation, vital statistics, pure food, and quarantine. In 1912 a new sanitary code was enacted and a State board of health with carefully defined duties was created. In 1915 three new bureaus were established: The bureau of rural sanitation, the bureau of sanitary engineering, and the bureau of venereal diseases which was conducted in cooperation with the social hygiene board. Again in 1920–1922 the health department was reorganized to include bureaus of communicable diseases, child hygiene in cooperation with the Federal Sheppard-Towner Act, pure food, venereal disease, laboratory, vital statistics, sanitary engineering, and rural sanitation. In 1927 a bill was passed reorganizing the State board of health in its present form.

STATE BOARD OF HEALTH

Organization.—The State board of health is composed of six members appointed by the governor with the confirmation of the senate. The members of the board must be graduates of recognized medical schools, legally qualified practicing physicians with not less than

Texas - Organization of the State Department of Health in 1930

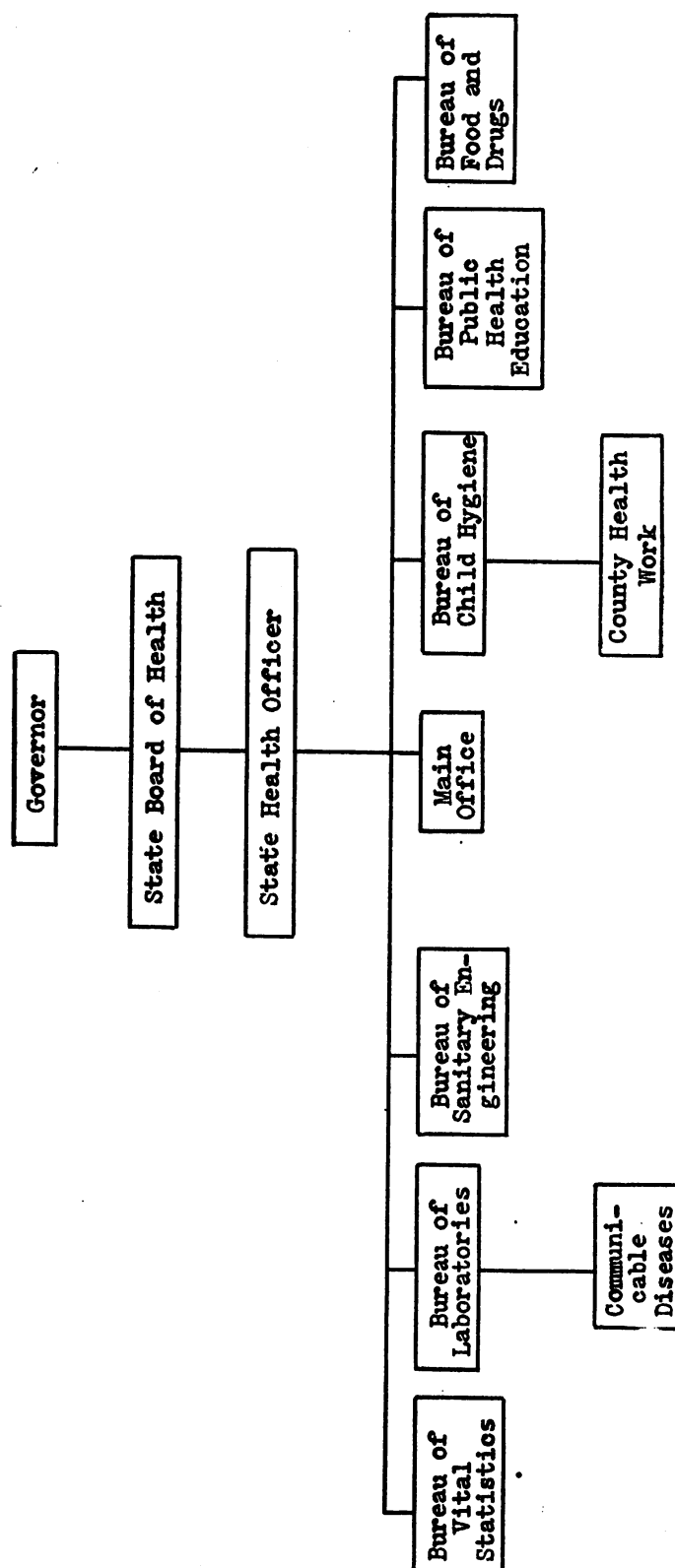


FIGURE 61

five years' experience within the State, and of good professional standing.

Term of office and compensation.—The members of the board serve for a period of six years, the terms of two members expire every two years. The State health officer is ex officio member and chairman of the board. The members, with the exception of the ex officio member, receive no fixed salary, but are allowed \$20 per day when engaged in the duties of their office, including time spent in travel to and from meetings. Traveling and other necessary expenses up to \$500 annually are also paid.

Meetings.—The board holds quarterly meetings and such special meetings as may be called by the State health officer or any two members of the board.

EXECUTIVE OFFICER

Legal qualifications.—The State board of health elects the State health officer from outside its membership, and may suspend or remove him for good and sufficient cause after due hearing. The State health officer must possess the same legal qualifications as the members of the board.

Term of office and compensation.—The State health officer serves for two years. He receives a yearly salary of \$4,500 and actual traveling expenses outside the State which must not exceed \$500 per annum.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State health officer is the executive head of the State department of health and has the power, with the approval of the State board of health, to prescribe and promulgate such administrative rules and regulations as may be deemed necessary for the effective performance of the duties imposed upon the State department of health. The State department of health has judicial, legislative, and executive powers concerning sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, midwifery, and quarantine. The enforcement of the medical practice act is not a function of the State department of health.

APPROPRIATIONS

The State legislature makes a biennial appropriation to the State department of health by bureaus. The legislature meets in January of odd years. The fiscal year of the health department ends August 31.

TABLE 224.—Bureaus of the State department of health in 1930 ¹

TEXAS

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Main office.....	\$34,450	5	\$4,500	\$8,520	\$13,020
Bureau of vital statistics.....	19,750	² 12	4,000	13,500	17,500
Bureau of laboratories.....	30,770	10	4,500	15,770	20,270
Bureau of sanitary engineering.....	33,600	10	3,600	18,300	21,900
Bureau of child hygiene.....	59,570	30	4,000	42,320	46,320
Bureau of public-health education.....	1,500	² 2	(³)	1,500	1,500
Bureau of food and drugs.....	29,880	12	3,000	17,700	20,700

¹ Total appropriation, \$216,020; total appropriation exclusive of tuberculosis sanatoria funds, \$216,020; State legislative appropriation, \$213,520.

² Official included whose time is devoted to more than 1 activity.

³ State health officer is the director.

MAIN OFFICE

Personnel.—The personnel of the main office consisted in 1930 of the State health officer, an accountant, a secretary, and a clerk.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel.

Activities.—The central division exercises general supervision over all divisions, appoints the subordinate personnel subject to the approval of the State board of health, expends the funds, and determines the policies of the department of health.

Disbursement of funds.—Funds are disbursed by the State treasurer upon vouchers approved by the State health officer.

Purchases.—Purchases are made by requisition of the State health officer on the State board of control.

BUREAU OF VITAL STATISTICS

History.—With the adoption of rules for the transportation of dead bodies through Texas in 1894, the collection of vital statistics began. The bureau of vital statistics was established in 1903. In 1908–9 the office of registrar of vital statistics was created and the data filed with the health department rather than with the county.

Personnel.—In 1930 the staff of the bureau of vital statistics consisted of the State registrar, a secretary, a certified copy clerk, an assistant certified copy clerk, three stenographers, a correction clerk, a filing clerk, a binding and mailing clerk, and a part-time bookkeeper.

Registration districts.—Cities or incorporated towns of over 2,500 population and justice precincts are the registration districts of the State.

Local registrars.—In cities the secretary or clerk is the local registrar. Otherwise the local registrars are appointed by the State registrar. City registrars receiving salaries for other positions do

not receive fees as local registrars. Otherwise the local registrars receive a fee of 50 cents paid from county or city funds for each certificate issued.

Registration area.—Texas has not yet met the minimum requirements of the Federal Census Bureau for admission to the registration areas for births or deaths.

Reporting of deaths.—In 1929 it was estimated that 85 to 90 per cents of the deaths occurring in the State were reported; of these, 90 per cent were reported by undertakers and 10 per cent by others. Deaths must be reported to the local registrar before burial and to the State registrar by the 10th of the month.

Legal standards.—The standard certificate, the model law, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929 it was estimated that 85 to 90 per cent of the births occurring in the State were reported; of these, 80 per cent were reported by physicians, 15 per cent by midwives, and 5 per cent by others. Births must be reported to the local registrars within five days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—Blanks for recording the returns are supplied by the State registrar and postage is provided by the local registrars.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners; embalmers are licensed by the State board of embalmers. Midwives and undertakers are not licensed but are required to register.

BUREAU OF LABORATORIES

Organization.—The bureau of laboratories was organized in 1928. At present the food and drug laboratories, the Pasteur institute, and the chemical, bacteriological, and pathological laboratories are all combined under this bureau. The control of communicable diseases is also one of the functions of the bureau.

Personnel.—The personnel of the bureau of laboratories was composed in 1930 of a director, an assistant director, 2 stenographers, a chemist, an assistant chemist, 2 technicians, a laboratory helper, and a porter.

Branch and private laboratories.—No branch laboratories have been established and the State department of health has no supervision over the private laboratories in the State.

Special laboratories.—No laboratories are maintained by the health department other than those included in this bureau.

Activities.—During 1929, 13,207 examinations were made by the hygienic laboratory. These were mainly Wassermann tests, Kahn tests, and water analyses. A summary of diagnostic activities is given on pages 99 to 100.

Fees.—No charge is made for any service performed by the laboratory.

Biological products.—No biologicals, with the exception of rabies vaccine, are manufactured or distributed by the State department of health.

Communicable diseases.—The bureau of communicable diseases has been discontinued; the bureau of laboratories is now responsible for the control of communicable diseases and the collection of morbidity reports.

Reporting of diseases.—Cases of communicable diseases are reported each week to the State department of health through the local health departments.

Quarantine.—Quarantine measures are controlled by the State health officer.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children by local ordinance only.

Emergency fund.—Appropriations of \$100 each are made for quarantine purposes and for leprosy. These funds are used at the discretion of the State health officer.

Tuberculosis control.—No tuberculosis-control work is carried on by the State department of health.

Sanatorium.—One State tuberculosis sanatorium, with a capacity of 500 beds, is maintained under the direction of the State board of control. Indigent, semi-indigent, and pay patients at a minimum cost may be admitted.

Clinics.—No tuberculosis clinics were maintained by the State department of health in 1929.

Venereal-disease control.—Inquiries concerning these diseases are handled through the main office.

Clinics and treatments.—No venereal-disease clinics were conducted by the State department of health during 1929 and no treatments were administered.

BUREAU OF SANITARY ENGINEERING

The bureau of sanitary engineering was established during 1916-1918.

Personnel.—The staff of the bureau of sanitary engineering consisted in 1930 of a chief engineer, an assistant engineer, a secretary, 2 stenographers, 2 milk supervisors, a district sanitarian, and 3 district sanitary engineers.

Public water-supply and sewage-disposal systems.—The State department of health has advisory and supervisory control over the construction and maintenance of public water-supply and sewage-disposal systems.

Analyses and inspection.—Public water supplies are analyzed and purification plants are inspected at irregular intervals.

Bottled waters.—The bottling of waters for potable purposes comes under the pure food law and is administered by the food and drugs bureau of the State department of health.

Ice industry.—Regulations have been passed concerning the ice industry.

Camps, swimming pools, and roadside water supplies, etc.—The State department of health renders consultant service with regard to swimming pools, tourist parks, sanitation of schools and public buildings, and roadside water supplies.

Milk sanitation.—The bureau of sanitary engineering promotes milk sanitation and enforces the standard milk ordinance in some 85 towns. The bureau of food and drugs handles the work of milk sanitation in the towns which have not yet adopted the ordinance.

Mosquito-control work.—In 1930 an appropriation of \$6,300 was made available for mosquito-control work. An engineer is employed to promote, organize, and supervise control work in municipalities which have a malaria problem. Literature on the subject is distributed in the rural schools.

BUREAU OF CHILD HYGIENE

The bureau of child hygiene was created in 1922.

Personnel.—In 1930 the personnel consisted of a director, a supervising nurse, a secretary, a supervisor of maternity homes and orphanages, 4 stenographers, 5 itinerant nurses, and 17 county nurses.

Prenatal hygiene.—Temporary and itinerant conferences and demonstrations are held by the bureau of child hygiene. Half the time of the county nurse is devoted to maternity and infancy work, and the remainder to general nursing activities and school work.

Lying-in hospitals and orphanages.—One hundred and fifty lying-in hospitals are licensed by the State department of health. Acting under the authority of the maternity home act of 1921, the maternity inspector has secured considerable improvement throughout the State. Orphanages also are licensed by the State department of health.

Midwifery.—Classes are held for the instruction of midwives.

Ophthalmia neonatorum.—The use of prophylactic drops in the eyes of the new born is required by statute.

Preschool hygiene.—During 1929, 766 preschool conferences were held and 12,363 children examined. Corrections of defects are made

through the family physician or occasionally through locally organized clinics.

School hygiene.—School hygiene activities are carried on as part of the nursing service. Corrective work is financed either individually or by local funds.

Public-health nursing.—All public-health nurses are required to devote half their time to a maternity and infancy program and the other half to school work. No bedside nursing is carried on.

Eligibility requirements.—A State public-health nurse must be a registered nurse with training and experience in public-health work.

County health work.—The bureau of child hygiene is more active in county health work than any other bureau of the department.

Local organizations.—In 1919 full-time county health work was begun in Texas. The work has not progressed as rapidly as in some other States and at the close of 1930 only one full-time county health organization which was receiving State aid was in operation. The commissioner's court in each organized county biennially appoints a county health officer, and may appropriate money for county health purposes.

Supervision.—The State department of health exercises advisory and supervisory authority over the local boards of health to some extent. Local reports are made to the bureau of child hygiene; advisory visits are made by the district supervisor.

Special appropriation.—A special appropriation of \$10,000 for county health work is made each year by the State legislature.

BUREAU OF PUBLIC-HEALTH EDUCATION

Personnel.—In 1930 the bureau of public-health education was directed by the State health officer, assisted by a clerk.

Publicity.—The State health officer directs the publicity activities of the health department.

Bulletins.—The bureau of child hygiene publishes a monthly bulletin. Pamphlets are issued from time to time.

Press service.—Weekly news-letters are sent to about 450 papers.

Equipment.—The State department of health owns 3 stereopticons, over 175 slides, and a portable exhibit.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

BUREAU OF FOOD AND DRUGS

Personnel.—The staff of the bureau of food and drugs in 1930 consisted of a director, a chief inspector, a secretary, five field inspectors, a collector and an assistant collector of registration fees.

Food handlers.—The medical examination of food handlers is required.

Food inspection and abattoirs.—The inspection of food and slaughter-houses is an activity of this bureau.

Hotels, etc.—A permit is required to operate places where food is handled.

Cold storage.—The enforcement of the cold storage laws is not a function of the State department of health.

Shellfish.—The control of shellfish sanitation is a function of the bureau of food and drugs.

Milk control.—The bureau of food and drugs handles violations of milk sanitation in those communities which have not adopted the standard milk ordinance. Those towns which have adopted the ordinance come under the jurisdiction of the bureau of sanitary engineering. (See page 578.) No regulations govern the pasteurization of milk. The tuberculin testing of cattle is required by city ordinance only. The chemical and bacteriological examinations of milk are made by the bureau of laboratories when requested. Dairies are not licensed by the health department.

Bottled water.—The supervision of bottling waters for potable purposes is a function of this bureau.

TABLE 225.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

TEXAS

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	¹ \$62,268	¹ \$96,543	¹ \$108,332	^{1 2} \$179,429	^{1 2 3} \$181,190	^{1 2 3} \$239,363
State legislative budget.....	58,300	86,571	103,161	160,180	130,002	153,383
Main office.....	31,080	26,080	26,080	25,580	24,580	52,783
Bureau of communicable diseases.....	23,520	55,091	63,681	60,680	57,963	35,000
Public health laboratory.....	1,800	1,800	1,800	3,000	3,000	3,100
Bureau of vital statistics.....	1,800	1,800	9,800	7,900	9,700	10,250
Full-time counties.....	¹ 3,968	^{1 2} 2,378	¹ 1,611	^{1 2} 13,755	^{1 2} 21,276	^{1 2} 45,622
Bureau of city and county health officers.....		¹ 7,593	¹ 3,560	¹ 30,946	¹ 7,277	¹ 6,011
Veneral diseases.....				15,000	³ 30,000	³ 26,200
Bureau of food and drugs.....						
Bureau of child hygiene.....						
Bureau of sanitary engineering.....						
Bureau of public health education.....						
Bureau of laboratories.....						

Bureau	1921	1922	1923	1924	1925
Total budget.....	^{1 2 3} \$237,034	^{1 2 3 4} \$203,803	^{1 2 3 4} \$219,350	^{1 2 3 4} \$277,059	^{1 2 4} \$264,887
State legislative budget.....	175,000	104,900	109,717	164,468	159,468
Main office.....	30,250	21,750	20,000	31,650	21,150
Bureau of communicable diseases.....	35,000	5,800	3,800	4,250	4,321
Public health laboratory.....	3,600	3,550	4,250	4,600	4,600
Bureau of vital statistics.....	10,250	10,900	9,700	10,000	10,676
Full-time counties.....	^{1 2} 35,345	^{1 2} 38,724	^{1 2} 31,813	^{1 2} 32,559	^{1 2} 47,804
Bureau of city and county health officers.....	¹ 5,476	¹ 5,218	¹ 2,459	¹ 7,093	¹ 6,882
Veneral diseases.....	³ 20,800	³ 16,344	³ 4,417	³ 7,167	³ 7,167
Bureau of food and drugs.....	51,450	34,050	31,100	17,000	25,500
Bureau of child hygiene.....		^{2 4} 52,347	^{2 4} 64,186	^{2 4} 99,648	^{2 4} 98,898
Bureau of sanitary engineering.....					
Bureau of public health education.....					
Bureau of laboratories.....					

¹ Rockefeller Foundation funds included. (See Table 226.)

² Local funds included. (See Table 226.)

³ United States Interdepartment Social Hygiene Board funds included. (See Table 226.)

⁴ United States Children's Bureau funds included. (See Table 226.)

TABLE 225.—*Total budget, State legislative budget for health work, and budgets by bureaus, by years—Continued*

TEXAS—Continued

Bureau	1926	1927	1928	1929	1930
Total budget.....	¹ \$172,616	¹ \$170,599	¹ \$217,766	¹ \$214,370	¹ \$216,020
State legislative budget.....	131,741	131,741	178,591	166,091	213,520
Main office.....	34,670	34,670	30,420	30,420	34,450
Bureau of communicable diseases.....	4,850	4,850	(⁵)	(⁵)	(⁵)
Public health laboratory.....	¹ 2,500	¹ 2,500	(⁵)	(⁵)	(⁵)
Bureau of vital statistics.....	12,750	12,750	¹ 13,800	¹ 13,800	19,750
Full-time counties.....					
Bureau of city and county health officers.....	(⁵)				
Venereal diseases.....	(⁵)				
Bureau of food and drugs.....	17,220	17,220	20,400	20,400	29,880
Bureau of child hygiene.....	⁴ 30,350	⁴ 30,350	⁴ 36,950	⁴ 36,950	59,570
Bureau of sanitary engineering.....	29,400	29,400	34,300	34,300	33,600
Bureau of public health education.....			3,000	3,000	1,500
Bureau of laboratories.....			¹ 39,720	27,220	30,770

¹ Rockefeller Foundation funds included. (See Table 226.)⁴ United States Children's Bureau funds included. (See Table 226.)⁵ Under bureau of laboratories.⁶ Discontinued.TABLE 226.—*Total appropriations for State department of health, by years*

TEXAS

Year	Total appropriation	Source of funds and amounts							
		State legislature	U. S. Inter-departmental Social Hygiene Board	U. S. Children's Bureau	County	County towns	Red Cross	Rockefeller Foundation	American Public Health Association
1915.....	\$62,268	\$58,300						\$3,968	
1916.....	96,543	86,571						9,971	
1917.....	108,332	103,161						5,170	
1918.....	179,429	160,680			\$9,386			9,363	
1919.....	181,190	130,002	\$22,132		6,676			22,380	
1920.....	239,363	153,383	20,311		21,673	\$17,800		26,196	
1921.....	237,034	175,000	20,311		14,677		\$3,933	23,133	
1922.....	203,803	104,900	16,344	\$20,984	29,077	325	16,100	16,073	
1923.....	219,350	109,717	20,108	27,331	33,220	3,290	10,566	14,934	\$184
1924.....	277,059	164,468	8,303	36,000	50,118	4,528		13,644	
1925.....	264,887	159,468		34,449	57,282	1,148		11,866	676
1926.....	172,616	131,741		35,350				5,525	
1927.....	170,599	131,741		35,350				3,508	
1928.....	217,766	178,591		36,451				2,725	
1929.....	214,370	166,091		36,451				10,828	\$1,000
1930.....	216,020	213,520						2,500	

UTAH

STATE BOARD OF HEALTH

Organization.—The governor with the approval of the senate appoints seven persons to constitute the State board of health. A majority of the members must be graduates of regularly chartered and legally constituted medical colleges and physicians in good standing; one must be a civil engineer.

Term of office and compensation.—The term of office is seven years; the term of one member expires each year. With the exception of the secretary no member of the State board of health receives a salary, but actual and necessary traveling expenses incurred while engaged in duties of the board are paid.

Utah - Organization of the State Department of Health in 1930

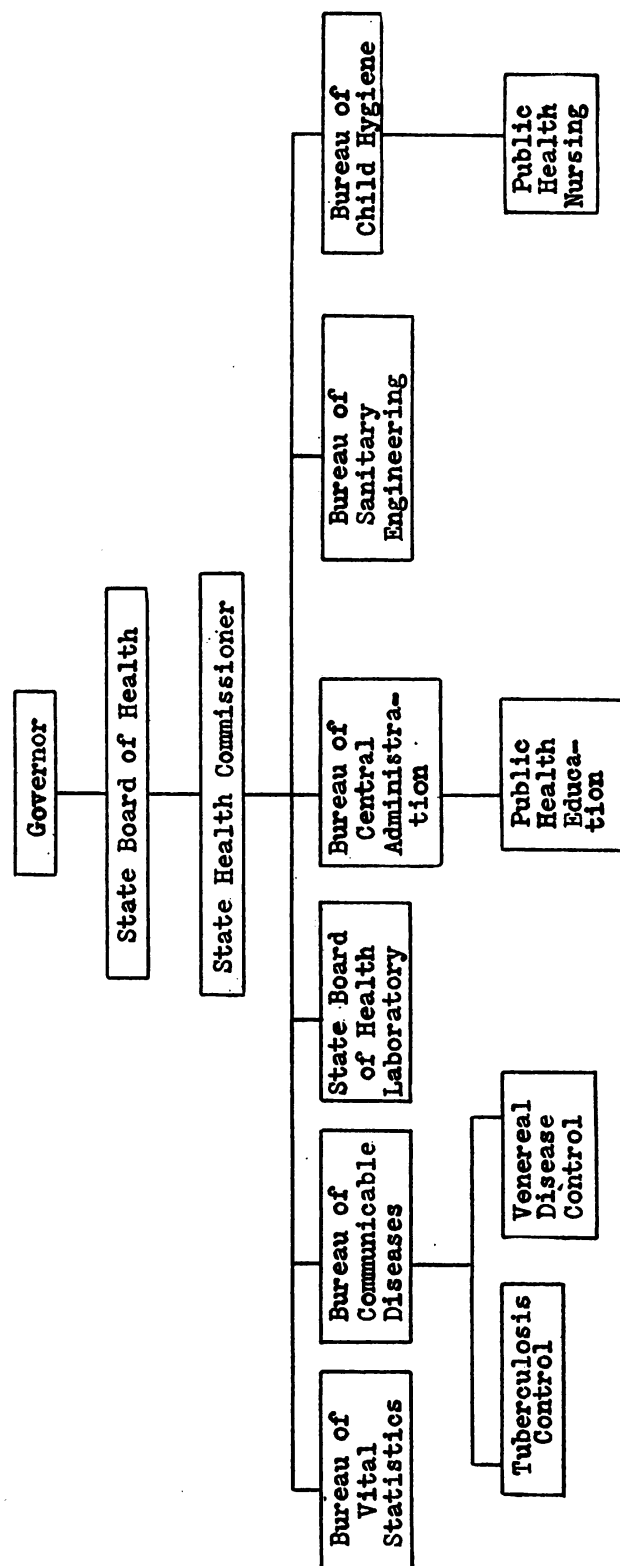


FIGURE 62

Number of meetings.—Four regular meetings are called each year by the State health commissioner. Additional meetings may be called.

EXECUTIVE OFFICER

Legal qualifications.—The board elects from its membership a president and a secretary. The latter becomes the executive officer of the board and is known as the State health commissioner. He must be a licensed physician of good standing, of temperate habits and good moral character, thoroughly informed and experienced in all matters pertaining to hygiene and sanitation, and skilled in the management and treatment of infectious and contagious diseases.

Term of office and compensation.—The executive officer serves during the pleasure of the State board of health. He is paid a yearly salary of \$4,000, and approximately \$600 annually for actual and necessary traveling expenses.

POWERS AND DUTIES OF THE STATE BOARD OF HEALTH

Judicial, legislative, and executive powers.—The State board of health has quasi-judicial power and the authority to make and enforce laws concerning sanitation, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. The control of milk supplies and food adulteration is a function of the State department of agriculture. The enforcement of the medical-practice law and laws regarding midwifery are functions of the State department of registration.

APPROPRIATIONS

A flat appropriation is made to the State board of health by the Utah State Legislature for biennial periods. A specific appropriation is made for the bureau of child hygiene only. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 227.—Bureaus of the State department of health in 1930 ¹

UTAH

Bureau	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Bureau of central administration	(2)	³ 3	\$4,000	\$1,500	\$5,500
Bureau of communicable diseases	(2)	³ 3	3,600	1,200	4,800
Bureau of vital statistics	(2)	³ 5	(4)	4,980	4,980
State board of health laboratory	(2)	³ 3	3,000	2,160	5,160
Bureau of sanitary engineering	(2)	³ 2	2,400	600	3,000
Bureau of child hygiene	(2)	³ 2	(4)	1,200	1,200

¹ Total appropriation, \$33,628; total appropriation exclusive of tuberculosis sanatoria funds, \$33,628; State legislative appropriation, \$33,628.

² No special allotment made by bureaus.

³ Officials included whose time is devoted to more than one activity.

⁴ State health commissioner is the director.

BUREAU OF CENTRAL ADMINISTRATION

Personnel.—The personnel of the bureau of central administration in 1930 consisted of the State health commissioner, assisted by a stenographer and a clerk, both of whom served part time.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—The State auditor issues a warrant upon receipt of vouchers drawn up by the State health commissioner and approved by the State board of examiners. Warrants are paid by the State treasurer.

Purchases.—Purchases are made on requisition to the State board of examiners which acts as a department of supplies and purchases.

Supervision.—The State department of health serves in a supervisory and advisory capacity toward the local health units.

Public-health education.—The State health commissioner has charge of the educational activities of the department of health.

Bulletins.—Occasional bulletins are issued at irregular intervals. Special pamphlets are published from time to time.

Press service.—The State press cooperates with the State department of health.

Equipment.—The State board of health owns a projector, a stereopticon, 100 slides, 13 motion-picture films, and portable exhibits.

Cooperation.—The State department of health does not cooperate with the department of education in carrying out health programs.

BUREAU OF COMMUNICABLE DISEASES

Personnel.—In 1930 the staff of the bureau of communicable diseases consisted of an epidemiologist, assisted by a part-time clinician to conduct tuberculosis clinics, and a part-time stenographer.

Reporting of diseases.—Cases of communicable disease are reported monthly to the State department of health by the local health officers. Where localities have collaborating epidemiologists appointed by the United States Public Health Service, weekly reports are made. Cases of typhoid fever and Rocky Mountain spotted fever must be reported immediately.

Quarantine.—Quarantine measures are under the control of the local boards of health.

Smallpox.—Smallpox vaccination is not compulsory for school children. A State law prohibits this requirement.

Emergency fund.—No emergency fund is provided for use in case of a severe epidemic.

Tuberculosis.—Through this bureau the State department of health emphasizes the furtherance of preventive measures and engages in educational activities in the control of tuberculosis. Tuberculosis is

stressed as a special problem and local health organizations are urged to cooperate with the State department of health in every way possible toward its control.

State sanatorium.—No State tuberculosis sanatorium is maintained. There is one county sanatorium with a capacity of 30 beds.

Clinics.—During 1929 one permanent and several mobile tuberculosis clinics were maintained by the State department of health. A total of 100 clinics were conducted during the year.

Venereal-disease control.—A venereal-disease bureau was maintained formerly. The control of venereal diseases is now a function of the bureau of communicable diseases. In 1911 a law was enacted by the State legislature requiring the reporting of venereal diseases. Utah was the first State to enact such a law.

Clinics.—No venereal-disease clinics are conducted under the supervision of the State department of health.

BUREAU OF VITAL STATISTICS

Personnel.—The State health commissioner is the State registrar of vital statistics. In 1930 he was assisted by a part-time and two full-time clerks and a stenographer.

Registration districts.—Cities of the first and second class and voting precincts are the primary registration districts of the State.

Local registrars.—In first and second class cities the health officer, who is appointed by the city commissioners, is the local registrar. In the precincts the local registrars are appointed by the county commissioners. The precinct registrars are paid a salary of \$3 per day for time actually required in carrying out the provisions of the law. Six registrations are designated as equivalent to a day's work. This amounts to a fee of 50 cents for each certificate issued.

Registration area.—Utah was admitted to the registration area for deaths in 1910 and to the registration area for births in 1917.

Reporting of deaths.—It was estimated in 1929 that 99 per cent of the deaths occurring in the State were reported; of these, 95 per cent were reported by physicians and 5 per cent by others. Deaths must be reported to the local registrar prior to burial or removal of the body and to the State registrar by the 5th of the month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used by this State.

Reporting of births.—It is estimated that 98 per cent of the births in the State are reported; of these, 90 per cent are reported by physicians, 9 per cent by midwives, and 1 per cent by others. Births must be reported to the local registrar within three days if no physician or midwife is in attendance. If a doctor or midwife attends the birth, it must be reported within 10 days. Births must be reported to the State registrar by the 5th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—Blanks and postage for recording the returns are supplied by the State board of health.

Unlawful death.—In case death is thought to be caused by unlawful means, the local registrar refers the case to the coroner for investigation and certification.

Burial permits.—Burial permits are required and are issued by the local registrars.

Licensing.—Physicians, midwives, and embalmers are licensed by the State department of registration. Undertakers are not licensed.

STATE BOARD OF HEALTH LABORATORY

Personnel.—In 1930 the staff of the State board of health laboratory consisted of a director, a laboratory assistant, and a stenographer.

Branch and private laboratories.—No branch laboratories have been established. The State department of health has no supervision over the private laboratories in the State.

Special laboratory.—The laboratory of the State chemist adjoins the State board of health laboratory. The State chemist is required by law to analyze all articles of food and drink manufactured, sold, or used within the State, which are submitted to him by the State department of agriculture or the State department of health.

Activities.—Milk and water analyses, and diagnostic and bacteriological examinations are made by the State board of health laboratory. During 1929, 45,065 examinations were made. These were chiefly examinations of diphtheria cultures, water analyses, and Wassermann tests. A summary of diagnostic activities is given on pages 99 to 100.

Fees.—No fee is charged for any service performed by the laboratory.

Biologicals.—During 1929, typhoid vaccine was issued free through the laboratory to physicians and boards of health. Typhoid inoculation and smallpox vaccinations are furnished free at clinics conducted throughout the State by the State department of health. Toxin-antitoxin is furnished by the State department of health at a price arranged for by contract with the manufacturers. The amounts issued in 1929 are not given.

BUREAU OF SANITARY ENGINEERING

Personnel.—In 1930 the work of the bureau of sanitary engineering was carried on by a sanitary engineer and a part-time stenographer.

Public water supplies.—Legislation concerning public water supplies is enforced by this bureau.

Bottled waters.—No specific legislation has been passed governing bottled waters, but control is effected through general powers granted to the health department.

Analysis and inspection.—Water supplies are analyzed and purification plants are inspected as frequently as possible.

Ice industry.—No rules and regulations govern the ice industry. The health department may control the industry through its general powers, however.

Sewage disposal.—No specific laws have been passed concerning the disposal of sewage. The health department has general supervision over sewage disposal.

Camps and swimming pools.—In accordance with vested authority, rules and regulations have been passed concerning sanitary conditions and water supplies in tourist and summer camps and swimming pools. Conditions are generally satisfactory.

Roadside water supplies.—No legislation has been passed concerning roadside water supplies. They are controlled through the general powers of the health department.

BUREAU OF CHILD HYGIENE

Personnel.—In 1930 the State health commissioner supervised the activities of the bureau of child hygiene. He was assisted by a clerk.

Prenatal and maternal hygiene.—Clinics or conferences devoted to maternity and infancy welfare are conducted by the bureau of child hygiene in the health centers which have been organized throughout the State. A pamphlet on the feeding and care of infants is sent to mothers on receipt of a birth certificate.

Midwifery.—No instruction or supervision is given to midwives.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum are reportable within 6 hours. It is the duty of every physician or midwife to treat the eyes of a child so afflicted. If it is impossible to secure the services of a physician, midwives are authorized to use five drops of a 20 per cent solution of argyrol.

Lying-in hospitals and orphanages.—Maternity hospitals, of which there are six in the State, and infant homes are licensed by the State board of health.

Preschool hygiene.—Special efforts are made to secure the examination of preschool children and the correction of defects preceding their entering school. During 1929, 541 combined prenatal, infant, and preschool conferences were held at which 10,189 preschool children were examined. Twenty-four dental clinics also were conducted for preschool children.

School hygiene.—It is the duty of every teacher to examine the eyes, ears, teeth, tonsils, and adenoids of each child. If defects are found, the teacher must notify the parents in writing. Facilities for the medical examination of school children are provided by some county

boards of education and by the health officers in counties having full-time units and in cities of the first class. Defective cases are referred to the family physicians. Provision for the treatment of indigent patients is made by some of the local health departments.

Public-health nursing.—Public-health nursing service is a function of the bureau of child hygiene.

Eligibility requirements.—Both State public-health nurses and local-health nurses must be graduate registered nurses with previous training and experience in public-health nursing.

TABLE 228.—Total appropriations for State department of health, by years ¹

UTAH

Year	Total appropriation	Source of funds and amounts				
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	U. S. Interdepartmental Social Hygiene Board	Rockefeller Foundation
1915.....	\$14,233	\$14,233	-----	-----	-----	-----
1916.....	14,234	14,234	-----	-----	-----	-----
1917.....	14,175	14,175	-----	-----	-----	-----
1918.....	14,175	14,175	-----	-----	-----	-----
1919.....	30,085	25,900	-----	-----	\$4,185	-----
1920.....	30,086	25,900	-----	-----	4,186	-----
1921.....	18,372	16,050	-----	-----	2,322	-----
1922.....	21,686	16,050	-----	\$5,000	-----	\$636
1923.....	39,454	32,593	-----	6,365	-----	496
1924.....	39,454	20,012	\$425	13,000	-----	6,017
1925.....	50,929	29,730	-----	13,000	-----	8,199
1926.....	53,455	29,730	-----	13,000	-----	10,725
1927.....	57,012	32,450	-----	13,000	-----	11,562
1928.....	57,550	32,450	-----	13,000	-----	12,100
1929.....	50,878	33,628	-----	13,000	-----	4,250
1930.....	33,628	33,628	-----	-----	-----	-----

¹ Figures for tabulation showing the distribution of funds by bureaus from 1915 to 1930 not available.

VERMONT

STATE BOARD OF HEALTH

Organization.—The State board of health consists of three persons, appointed by the governor with the advice and consent of the senate. There are no legal qualifications for membership on the State board of health.

Term of office and compensation.—Each member serves for a period of six years, the term of one member expiring every two years. The members receive \$4 per day and actual traveling expenses incurred during the performance of their official duties.

Meetings.—Regular meetings are held each month and special meetings may be called by the secretary or chairman.

EXECUTIVE OFFICER

Legal qualifications.—The board in turn appoints a secretary, who acts also as the executive officer. He is chosen from outside and is not

Vermont - Organization of the State Department of Health in 1930

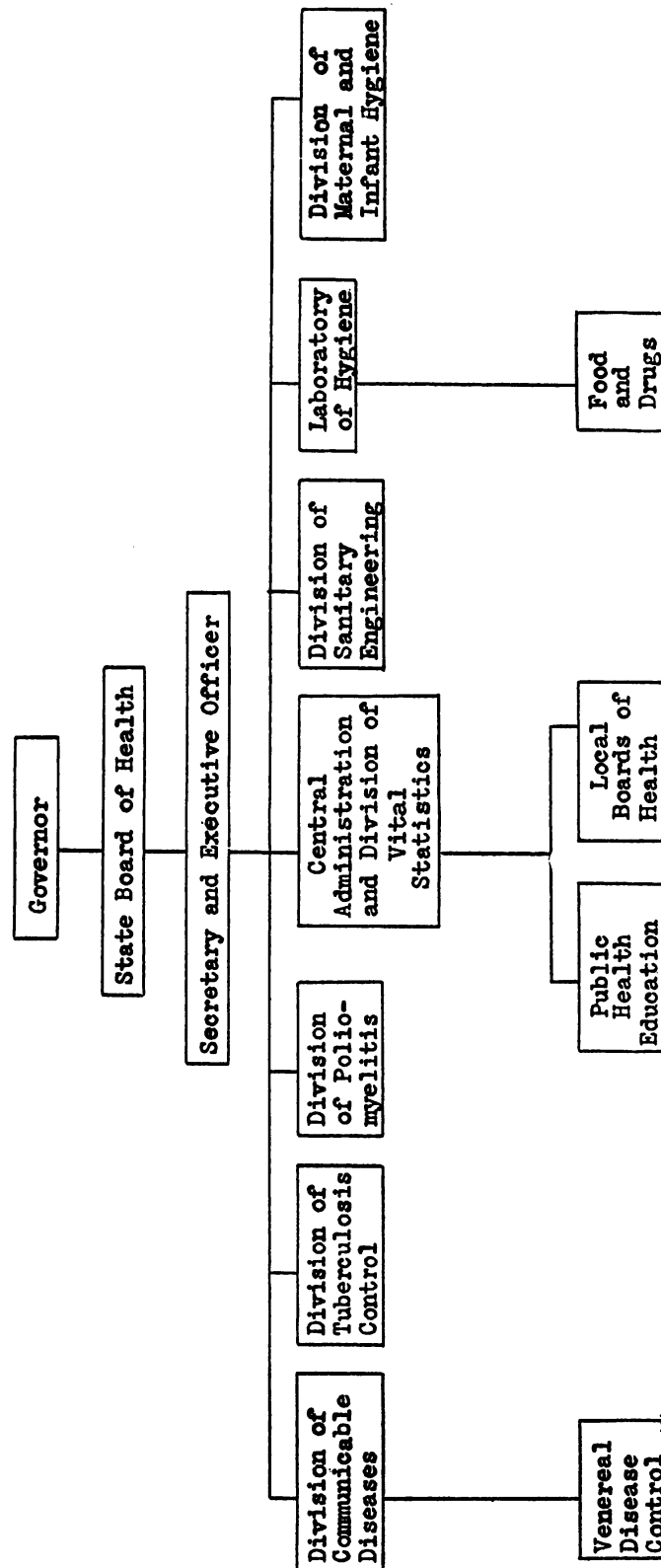


FIGURE 63

a member of the board. The secretary of the board must be a reputable practicing physician of the State.

Term of office and salary.—The secretary and executive officer serves for an indefinite period. He receives a yearly salary of \$5,000 and his necessary traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The executive power of the State department of health is vested in the State board of health and is delegated by it to the secretary of the board. The State board of health has no judicial power. It has the authority to make and enforce rules and regulations concerning milk supplies, food adulteration, nuisances, communicable diseases, quarantine, and sanitary inspection. In addition, it has advisory authority in regard to water pollution and sewage disposal. Enforcement of the medical practice act and the control of midwifery are not functions of the State department of health.

APPROPRIATIONS

Appropriations are made by the State legislature to the State department of health each biennium. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 229.—Divisions of the State department of health in 1930¹

VERMONT

Division	Total budgets, by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration and division of vital statistics.....	\$22,000	4	\$5,000	\$3,096	\$8,096
Division of communicable diseases.....	(?)	2	3,750	300	4,050
Division of tuberculosis control.....	2,000	³ 2	⁴ 600	528	1,128
Division of poliomyelitis.....	⁵ 25,000	5	⁶ 4,200	7,960	12,160
Division of sanitary engineering.....	(?)	³ 1	(?)	(?)	(?)
Laboratory of hygiene.....	16,000	5	3,750	9,270	13,020
Division of maternal and infant hygiene.....	5,000	2	1,900	960	2,860

¹ Total appropriation, \$45,000; total appropriation exclusive of tuberculosis sanatoria funds, \$45,000; State legislative appropriation, \$45,000.

² Included under central administration.

³ Officials included whose time is devoted to more than one activity.

⁴ Director is also secretary of the Vermont Tuberculosis Association.

⁵ This division is supported by a private donation.

⁶ This is the salary of the director of research. There is also a director for "after care," who receives \$3,500 a year.

⁷ \$10 per diem and expenses.

CENTRAL ADMINISTRATION

Personnel.—The personnel in 1930 consisted of the secretary of the board and three clerks.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel in the department.

Duties of the secretary of the board.—The secretary of the board superintends the work of the health department, renders assistance to the local boards of health, supervises the collecting and tabulating of vital statistics, and has charge of the control of communicable diseases.

Disbursement of funds.—All bills must be approved by the secretary of the board, passed by the commissioner of finance of the State government, audited by the State auditor, and paid by the State treasurer.

Purchases.—Supplies are purchased through the State purchasing agent.

Local boards of health.—The State board of health appoints a local health officer for each town or city upon recommendation of the selectmen. These local officials are paid from local sources. Some are paid a salary, but the usual payment is by fees. There are three full-time municipal health officers in the State. The State board of health may exercise all the powers and authority in each town and village which is given to a local board of health, and the secretary of the board may likewise exercise all the power and authority of a local health officer anywhere in the State. If necessary, the State board of health may assume control of the town concerning matters of health.

Publicity.—The secretary of the board has charge of the publicity of the health department.

Bulletins.—No bulletins are published.

Press service.—The State department of health has no press service. The secretary of the board occasionally broadcasts a talk on some special health subject.

Equipment.—The health department owns 2 stereopticons, 2 motion-picture machines, and 12 films. There are no portable exhibits in the department.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF VITAL STATISTICS

The division of vital statistics is part of the central office.

Registration district.—The town is the primary registration district in this State.

Local registrars.—The town clerks, elected by the people, serve as local registrars. They are paid by the towns a fee of 10 cents per record issued.

Registration area.—Vermont was admitted to the registration area for deaths in 1890 and was one of the original States in the registration area for births.

Reporting of deaths.—The percentage of deaths reported in 1929 was not recorded. All deaths are reported by physicians. Deaths

must be reported to the local registrar within 36 hours and to the State registrar by the 30th day of the month.

Legal standards.—The model law as such has not been adopted in Vermont, but all points of the law are covered. The standard certificate and the international list of the causes of death are used in this State.

Reporting of births.—The percentage of births reported in 1929 was not recorded. All births are reported by physicians. Births must be reported to the local registrar within 10 days and to the State registrar by the 30th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns, and the towns provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is investigated by the director of the State laboratory.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical registration, and undertakers are licensed by the State board of embalmers. Midwives are not licensed.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—The personnel of the division of communicable diseases consisted in 1930, of a director and a secretary.

Reporting of diseases.—Local health officers and physicians report cases of communicable diseases weekly to the State department of health. Cases of smallpox and poliomyelitis must be reported at once.

Quarantine.—Quarantine measures are under the control of the local boards of health.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—An emergency fund controlled by the governor may be used in case of necessity.

Venereal-disease clinics.—No venereal-disease clinics are carried on by the State department of health.

Treatments.—During 1929, 5,005 free venereal-disease treatments were administered.

Biological products.—Antitoxin, toxin-antitoxin, typhoid vaccine, and silver-nitrate ampules are purchased and distributed through the division of communicable diseases.

DIVISION OF TUBERCULOSIS CONTROL

Activities.—A State appropriation to be used to pay all or part of the expenses of tuberculous patients in the sanatoria and prevent-

orium is controlled by the governor. The Vermont State Board of Health, however, receives \$2,000 from the State for tuberculosis work. According to the law this appropriation shall be used for education and publicity. In order to carry on an adequate program, the State board of health cooperates with the Vermont Tuberculosis Association, a voluntary agency.

Personnel.—The secretary of the Vermont Tuberculosis Association serves as part-time director of the State division of tuberculosis control. In 1930 he was assisted by the part-time services of a secretary.

Sanatoria.—The State tuberculosis sanatorium has a capacity of 54 beds. This institution is under the control of the commissioner of public welfare. In 1930, \$100,000 was appropriated for its maintenance. There is also a county sanatorium with a capacity of 46 beds and a private sanatorium with a total of 44 beds.

Clinics.—No tuberculosis clinics were conducted by the health department in 1929.

DIVISION OF POLIOMYELITIS

Personnel.—The personnel of the division of poliomyelitis in 1930 consisted of an aftercare director, a research director, an aftercare nurse, a vocational teacher, and a secretary.

Funds.—The division was organized in 1914 and is conducted entirely with funds received from a private donation. These funds are paid over to the State treasurer in quarterly amounts. All bills are passed through the regular auditing department of the State.

Aftercare.—The aftercare consists of visiting crippled patients and supervising their treatment and exercises.

Clinics.—The nurse holds a series of clinics. Patients are taken to Boston and New York for treatment. All expenses are paid whenever necessary.

Educational activities.—A vocational teacher is employed to instruct crippled children in various crafts. Their products are sold for them.

Research.—The research work is carried on by one physician. During the last few years a cooperative agreement has been made with the Harvard infantile-paralysis commission whereby the research worker spends the winter at the Harvard Medical School and the summer in Vermont to conduct the clinical work.

LABORATORY OF HYGIENE

Personnel.—The personnel of the laboratory of hygiene in 1930 consisted of a director, a secretary, a bacteriologist, a chemist, and a serologist.

Branch and private laboratories.—No branch laboratories have been established, and the health department has no supervision over the private laboratories in the State.

Special laboratories.—No laboratories other than the diagnostic laboratory are maintained by the State department of health.

Activities.—The State laboratory performs the Wassermann tests for the State institutions and examines sputa for the tuberculosis sanatorium. In addition it carries on the work of a division of food and drugs. The State department of agriculture cooperates with the laboratory by inspecting the milk, cream, and butter shipped out of the State. The laboratory performs the routine water and milk analyses. During 1929, 16,839 examinations were made. A summary of the specimens examined is given on pages 99 to 100.

Fees.—Fees are charged for urinalyses, blood counts, autogenous vaccine, and tissue examinations. These fees are turned over to the State treasurer.

Biological products.—Biological products are not manufactured by the laboratory, but antitoxin, toxin-antitoxin, typhoid vaccine, and silver-nitrate ampules are purchased and distributed free of charge to physicians through the division of communicable diseases. A detailed analysis of the biologicals distributed during 1929 is given on page 103.

Food and drugs.—The enforcement of the food and drug laws is intrusted to the State department of health and is carried out by the staff on the State laboratory.

Food handlers.—The medical examination of food handlers may be required during an epidemic.

Food inspection and abattoirs.—Food and slaughterhouses are inspected by members of the State department of health.

Hotels, etc.—Permits are not required to run places where food is handled.

Cold storage and shellfish.—There are no laws pertaining to cold storage or the sanitation of shellfish.

Milk laws.—The State department of health cooperates with the State department of agriculture in the enforcement of the milk laws.

Pasteurization.—There are no regulations concerning the pasteurization of milk.

Tuberculin testing.—The testing of cattle for tuberculosis is a function of the department of agriculture.

Analysis.—Bacterial and chemical examinations of samples of milk are made by the State laboratory.

Dairies.—Dairies are licensed through local ordinances only.

DIVISION OF SANITARY ENGINEERING

Personnel.—The whole-time services of a sanitary engineer have never been given to this department, but the work has been efficiently carried on by the part-time services of the dean of the college of

engineering in the University of Vermont. He is available for consultation and advice at all times, and during certain parts of the year a large portion of his time is given to the work of the State department of health.

Activities.—Most of the work of the division of sanitary engineering consists in the supervision of sanitation connected with schoolhouses and public buildings, the control of water supplies, and sewage disposal.

Public water supplies and sewage-disposal systems.—The health department serves in an advisory capacity. Plans for the installation of public water supplies and sewage-disposal systems must be submitted to the State department of health for approval.

Analysis.—Public water supplies must be analyzed at least four times a year.

Inspection.—Water-purification plants are inspected at least once a year and more often if trouble occurs.

Bottled waters.—There is no specific legislation concerning bottled waters.

Ice industry.—The State department of health has general supervision over the sources of water used for ice supplies. It may prohibit the use of water or ice from any source, if so contaminated as to endanger the public health.

Camps.—Within the last few years the industry of boys' and girls' camps has grown to importance. A large part of the summer is spent by the sanitary engineer in visiting and inspecting these camps. This method of supervision of camps is more satisfactory than an attempt to enforce a set of rules and regulations without adequate machinery.

Swimming pools and roadside water supplies.—No legislation has been passed concerning swimming pools or roadside water supplies.

DIVISION OF MATERNAL AND INFANT HYGIENE

Personnel.—In 1930 the personnel of the division of maternal and infant hygiene consisted of a field nurse and a stenographer.

Activities.—A large part of the work is educational and is conducted through the distribution of literature and acknowledgments of birth certificates from the central office.

Prenatal clinics.—No prenatal clinics are conducted by the State department of health.

Midwifery.—No instruction or supervision is given to midwives.

Ophthalmia neonatorum.—The State board of health is authorized to make such rules and regulations as it deems necessary for the prevention of blindness from ophthalmia neonatorum. The board may furnish, at the expense of the State, such prophylactic outfits as

are necessary for the use of physicians. A physician who fails to comply with such rules or regulations is fined \$10 for each offense.

Lying-in hospitals and orphanages.—There are no lying-in hospitals in the State. Orphanages are not licensed by the department of health.

Preschool clinics.—During 1929, 22 preschool clinics were held, and 569 infants and preschool children were examined.

School hygiene.—School hygiene is a function of the State department of education.

Number of nurses.—There are 56 public-health nurses in the State. Nursing service is not supervised by the health department.

Eligibility requirements.—As yet no eligibility requirements for a State or local public-health nurse have been established.

TABLE 230.—Total appropriations for State department of health, by years ¹

VERMONT

Year	Total appropriation	Source of funds and amounts			
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	Polio-myelitis fund ²
1915.....	\$30,000	\$30,000	-----	-----	-----
1916.....	40,000	40,000	-----	-----	-----
1917.....	40,000	40,000	-----	-----	-----
1918.....	40,000	40,000	-----	-----	-----
1919.....	80,000	80,000	-----	-----	-----
1920.....	82,500	80,000	\$2,500	-----	-----
1921.....	87,500	85,000	2,500	-----	-----
1922.....	85,000	85,000	-----	-----	-----
1923.....	40,000	40,000	-----	-----	\$30,000
1924.....	40,000	40,000	-----	-----	30,000
1925.....	45,000	40,000	-----	\$5,000	24,000
1926.....	45,000	40,000	-----	5,000	30,000
1927.....	45,000	40,000	-----	5,000	30,000
1928.....	41,000	36,000	-----	5,000	35,000
1929.....	45,000	40,000	-----	5,000	30,000
1930.....	45,000	45,000	-----	-----	25,000

¹ Figures for a tabulation showing the distribution of funds, by divisions, from 1915 to 1930 are not available.

² Private donation, not included in the total appropriation.

VIRGINIA

STATE BOARD OF HEALTH

Organization.—The State board of health is composed of seven members appointed by the governor. The State is arbitrarily divided for the purpose into five divisions. One member is appointed from each of these divisions, and two additional members are appointed from the State at large. Two members of the board must be members of the Medical Society of Virginia, and one must be a member of the State dental association.

Term of office and compensation.—The term of office is seven years; the term of one member expires each year. The members of the

Virginia - Organization of the State Department of Health in 1930

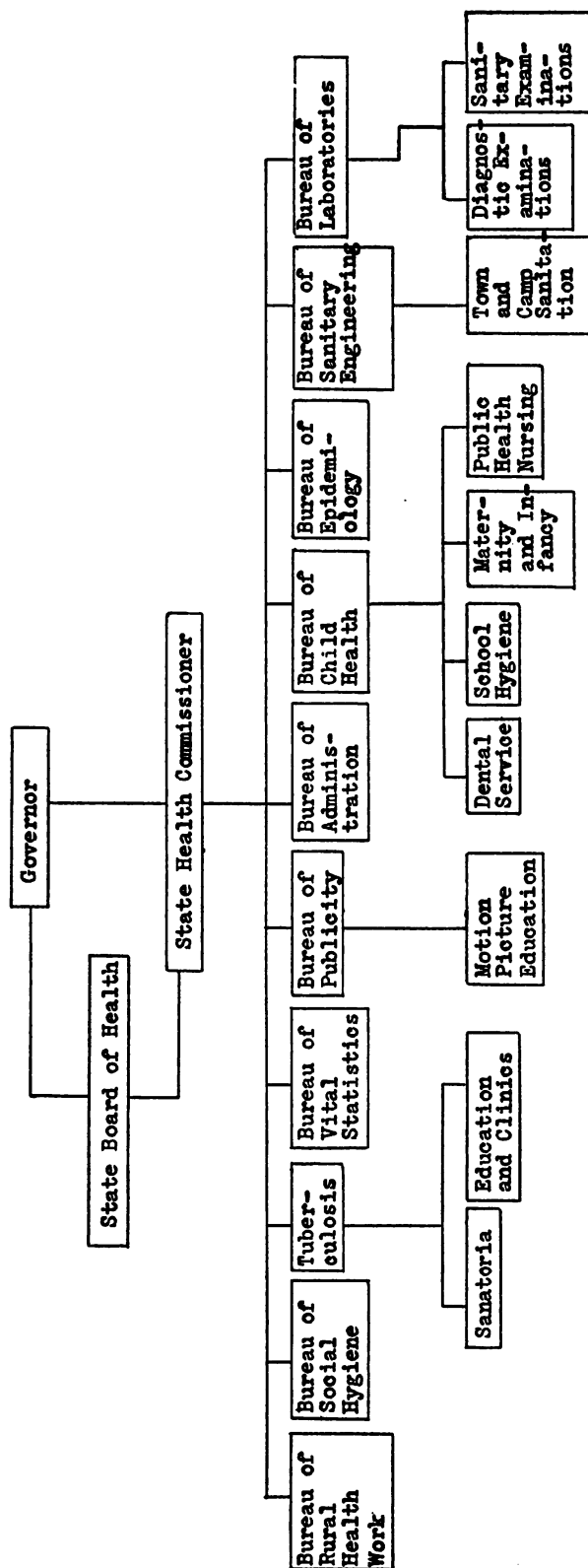


FIGURE 64

State board of health are paid \$8 a day when actually engaged in the discharge of their duties, and mileage as prescribed by law.

Meetings.—One mandatory meeting a year is held, and usually two special meetings are called by the president of the State board of health or by the commissioner of health.

Executive committee.—An executive committee composed of three members, chosen by the State board of health, meets at the call of its chairman, who is the president of the board. The committee acts in an advisory capacity to the executive officer.

EXECUTIVE OFFICER

Legal qualifications.—The governor appoints the State health commissioner from outside the board. He must be versed in bacteriology and sanitary science, and otherwise fitted and equipped to execute the duties incumbent upon him. The commissioner is the executive officer of the State board of health, but not a member thereof.

Term of office and salary.—The commissioner, who must reside in the city of Richmond, holds office for a term of four years unless removed by the governor. He receives a yearly salary of \$7,500 and necessary traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has the right between sessions of the general assembly to make such rules and regulations as it may deem best to protect the public health. Such rules and regulations have the full force and effect of laws passed by the general assembly until or unless they are repealed by the general assembly. The State department of health has no judicial power. It is empowered by statute to enforce sanitation within incorporated towns, within a radius of one-half mile from incorporated towns and also within rural districts when approved by the local board of health. The State department of health has authority to enforce laws concerning public water supplies, sewage disposal, quarantine measures, communicable diseases, shellfish sanitation, nuisances and midwives. It conducts tuberculosis sanatoria and tuberculosis, infant, preschool, and dental clinics. The control of milk supplies and of food adulteration are functions of the State department of agriculture and the State board of pharmacy, respectively. The enforcement of the medical practice act is a function of the State board of medical examiners.

APPROPRIATIONS

Appropriations for the State board of health were formerly made in a lump sum. Since 1925 the moneys have been appropriated to

the different bureaus. The legislature meets in January of even years. The fiscal year of the State department of health ends June 30.

TABLE 231.—*Bureaus of the State department of health in 1930*¹

VIRGINIA

Bureaus	Total bud-gets by bureaus	Number of per-sonnel	Salary of director	Salary of other personnel	Total salaries
Bureau of administration.....	\$22,580	6	\$7,500	\$8,360	\$15,860
Bureau of rural-health work.....	95,000	7	5,000	12,000	17,000
Bureau of epidemiology.....	10,975	3	5,000	4,900	9,900
Bureau of tuberculosis education and clinics.....	64,420	19	3,000	29,600	32,600
Tuberculosis sanatoria.....	276,050				
Bureau of social hygiene.....	2,500	2	(²)	1,320	1,320
Bureau of vital statistics.....	33,935	18	3,750	22,685	26,435
Bureau of laboratories.....	25,820	18	5,000	25,740	30,740
Bureau of sanitary engineering.....	22,085	6	4,500	11,770	16,270
Town and camp sanitation.....	4,500	1	2,500		2,500
Bureau of child health.....	57,380	17	3,250	18,085	21,335
Bureau of publicity.....	13,450	1	2,500		2,500

¹ Total appropriation, \$879,535; total appropriation exclusive of tuberculosis sanatoria funds, \$603,485; State legislative appropriation exclusive of tuberculosis sanatoria funds, \$352,645.

² The assistant health commissioner is the director.

BUREAU OF ADMINISTRATION

Personnel.—In 1930 the personnel of the central administration office was composed of the health commissioner, a secretary-stenographer, an administrative assistant, a chief clerk, and an assistant clerk.

Civil service.—The employees of the State department of health are not civil service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed by the State comptroller upon an order from the State auditor signed by the State health commissioner.

Purchases.—Purchases are made through the State purchasing agent upon the requisition of the head of each bureau, signed by the health commissioner.

BUREAU OF RURAL-HEALTH WORK

Personnel.—The staff carrying on the work of rural sanitation in 1930 was composed of a director, who is also the assistant health commissioner, three secretaries, a district physician, and two sanitary supervisors.

Program.—Virginia promotes rural-health work under the four programs of whole-time medical health departments, whole-time sanitary officer service, whole-time public-health nursing service, and combinations of these three programs.

Municipal health service.—Every city and most of the towns have some kind of health organization. Ten cities have whole-time medi-

cal health officers with well-equipped staffs. All other cities and towns have part-time health service.

Local boards of health.—A local board of health consists of the chairman of the local board of supervisors, the county clerk, and three members appointed by the State department of health, two of whom must be regularly licensed physicians of the county or town. The local boards of health are empowered to adopt necessary rules and regulations, which have the force of law.

Health units.—At the close of 1930 there were 26 full-time county health organizations and 25 county sanitation officers not connected with the health units. The work of these officers is under the supervision of two trained officers of the central office. There were also 23 full-time nursing services and 11 part-time nursing services not connected with full-time units. These are under the supervision of two trained nurses from the central office.

Supervision.—The State department of health appoints a majority of the members of each local board of health and may take complete charge in case of emergency at the expense of the county. It acts in an advisory capacity toward the local boards of health. Otherwise the local boards of health have full authority.

TABLE 232.—Data on full-time counties operating throughout 1929

VIRGINIA

County	Organized	1929 population ¹	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930 ¹	Number of whole-time personnel				
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks
Norfolk.....	1916	40, 150	\$10, 375	\$0. 26	\$45, 424, 000	\$0. 0002	Norfolk (126,604) Portsmouth (46,260). Staunton (11,784).....	1	—	1	1	1
Augusta.....	1917	37, 812	5, 050	. 13	24, 585, 000	. 0002	—	1	—	—	1	—
Arlington.....	1919	25, 067	12, 700	. 51	15, 446, 000	. 0008	—	1	—	2	2	—
Halifax.....	1920	41, 068	9, 200	. 22	18, 924, 000	. 0005	—	—	1	1	1	1
Albermarle.....	1920	26, 833	17, 400	. 65	16, 079, 000	. 0011	Charlottesville (14,711).....	1	—	2	3	1
Wise.....	1921	50, 703	6, 900	. 14	18, 435, 000	. 0004	—	1	—	—	1	—
Nansemond.....	1922	22, 296	15, 300	. 69	9, 333, 000	. 0016	Suffolk (10,149).....	1	—	2	3	1
Accomac.....	1923	35, 713	11, 375	. 32	18, 078, 000	. 0006	—	1	—	1	1	1
Henrico.....	1923	28, 156	11, 070	. 39	24, 701, 000	. 0004	Richmond (181,765).....	1	—	1	1	1
Princess Anne.....	1923	15, 975	7, 125	. 45	7, 863, 000	. 0009	—	(3)	—	1	1	(3)
Northampton.....	1924	18, 455	9, 425	. 51	10, 970, 000	. 0009	—	(3)	—	1	1	(3)
Isle of Wight.....	1924	13, 506	7, 000	. 52	7, 360, 000	. 0010	—	(3)	—	1	1	(3)
Brunswick.....	1924	20, 539	6, 880	. 33	10, 424, 000	. 0007	—	1	—	1	1	1
Southampton.....	1926	26, 934	11, 500	. 43	14, 491, 000	. 0008	—	1	—	1	1	1
Rockbridge.....	1927	21, 760	10, 250	. 47	13, 583, 000	. 0008	Buena Vista (3,992).....	1	—	1	1	1
Greensville.....	1928	13, 059	6, 380	. 49	6, 397, 000	. 0010	—	(9)	—	(9)	1	(9)
Total.....	-----	438, 026	157, 930	. 36	262, 093, 000	. 0006	-----	11	1	16	21	9

¹ These cities are all independent, and their population is not included with that of the counties.

² Included with Norfolk County.

³ Included with Accomac County.

⁴ Included with Nansemond County.

⁵ Included with Brunswick County.

BUREAU OF EPIDEMIOLOGY

Personnel.—The bureau of epidemiology was established in 1923. The staff in 1930 was composed of a director and two secretaries.

Activities.—The State department of health is responsible for the control of communicable diseases. When a county is unable or unwilling to take proper measures, the State department of health supplants the county authorities and creates organizations for the purpose of remedying conditions inimical to public health.

Reporting of diseases.—Certain cases of communicable diseases are reported at once, and others are reported monthly, to the State department of health by practicing physicians and local health officers. The organized county health units report weekly; counties without organized units report monthly.

Quarantine.—The local boards of health and county health officers have control of quarantine measures.

Smallpox vaccination.—Smallpox vaccination of school children is compulsory. However, school boards may set aside vaccination requirements if they deem such action advisable.

Emergency fund.—No emergency fund for use in case of a severe or extensive outbreak is provided.

BUREAU OF TUBERCULOSIS EDUCATION AND CLINICS

Tuberculosis-control work is carried on under an educational and clinical program and by tuberculosis sanatoria.

Personnel.—The staff carrying on the work of the bureau of tuberculosis education and clinics in 1930 was composed of a director and 18 others.

Tuberculosis clinics.—Two types of clinics are maintained by the State department of health: Periodic clinics held for a week by a nurse who visits organized and unorganized county health units once a month or once in two months and who remains 10 days for home visits after the close of the clinics, and occasional clinics held for 3 or 4 days in counties visited once a year. During 1929 the State department of health conducted 603 tuberculosis clinics at 85 stations; a total of 8,446 patients was treated, of whom 6,171 were white. In addition, 664 clinics were conducted by city health departments, where 9,321 patients were treated.

Sanatoria.—The State department of health is charged with the responsibility of the conduct of the State's tuberculosis sanatoria. The 3 tuberculosis sanatoria under the control of the State board of health, 1 for colored and 2 for white patients, have a total capacity of 785 beds; of these, 40 beds are free; 140 beds for colored patients cost \$3.50 per week; and 505 beds for white patients cost \$7 per week. In 1930 \$276,050 for the maintenance of these sanatoria was included

in the budget of the department of health. There are also three municipal sanatoria in Norfolk, Danville, and Richmond, with a total capacity of 187 beds, and a private sanatorium located at Mount Regis, Salem, with 75 beds.

Nurses.—Nine nurses, exclusive of those at the sanatoria, are engaged in tuberculosis work.

BUREAU OF SOCIAL HYGIENE

Personnel.—The assistant health commissioner is the director of the bureau of social hygiene. He was assisted in 1930 by a secretary.

Activities.—The program carried on by the State department of health is mainly educational, as the appropriation is inadequate for further activities. Venereal-disease control work is a function of the State and local boards of health; the department of health has full power to enforce quarantine and treatment.

Clinics.—No venereal-disease clinics are maintained by the State department of health, but all the larger cities have established clinics. These clinics formerly were subsidized by the bureau of social hygiene.

BUREAU OF VITAL STATISTICS

Personnel.—In 1930 the personnel of the bureau of vital statistics consisted of the State registrar of vital statistics, an assistant director, three stenographers, five typists, and nine clerks.

Registration districts.—The State is divided into magisterial districts which, together with the cities and towns, serve as registration districts.

Local registrars.—City clerks serve as local registrars. Other local registrars are chosen by the State registrar. County registrars are paid by their respective county boards a fee of 25 cents for each certificate issued. The city registrars do not receive any extra compensation.

Registration area.—Virginia was admitted to the registration area for deaths in 1913 and to the registration area for births in 1917.

Reporting of deaths.—In 1929, 95 per cent of the deaths occurring in the State were reported. The percentage reported by physicians, undertakers, etc., is not recorded. Deaths must be reported to the local registrars before burial and to the State registrar on the 10th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 95 per cent of the births occurring in the State were reported; of these 69.8 per cent were reported by physicians, 29.2 per cent by midwives, and 1 per cent by others. Births must be reported to local registrars within 10 days and to the State registrar on the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State board of health supplies the blanks for recording the returns but does not provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful or suspicious means, the case is referred to the coroner and the Commonwealth attorney.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the board of medical examiners; undertakers are licensed by the commissioner of revenue of the various cities; and midwives are licensed by the State department of health.

BUREAU OF LABORATORIES

Personnel.—In 1930 the personnel of the public-health laboratories consisted of the director, an assistant director and serologist, three bacteriologists, two technicians, an assistant serologist, a chemist, a clerk, two stenographers, a janitor, and a helper.

Branch laboratories.—A branch laboratory was established at Norton in Wise County, April 1, 1923; a second branch laboratory was established later at Harrisonburg in Rockingham County; and a third laboratory was established at Nassawadox in Northampton County. These branch laboratories are financed by State and local funds.

Private laboratories.—The State department of health has no supervision over the private laboratories in the State.

Special laboratories.—No laboratories other than the central and branch laboratories are maintained by the State department of health.

Activities.—During 1929, 88,811 examinations were made by the central and branch laboratories. These were mainly Wassermann tests, Kahn tests, analyses of water and milk, and examinations of diphtheria and tuberculosis cultures. A summary of diagnostic activities is given on pages 99 to 100.

Fees.—No charge is made for any laboratory service.

Biological products.—Wax ampules of silver nitrate are prepared by the laboratory and distributed through the administration office. Otherwise the State department of health purchases materials on contract and distributes them at cost to the county health officers through the administration office. A detailed analysis of the biologicals distributed during 1929 is given on page 103.

Research.—Research work is carried on to a limited extent by the laboratories.

BUREAU OF SANITARY ENGINEERING

The first appropriation for the bureau of sanitary engineering was made in 1920.

Personnel.—In 1930 the personnel of the bureau consisted of a chief engineer, three assistant engineers, a secretary, and a stenographer.

Public water supplies.—The State department of health acts chiefly in an advisory capacity with regard to public water supplies. Permits from the State department of health are required for the installation or the extension of systems of water supplies.

Analysis.—Public water supplies are analyzed weekly, semiweekly, monthly, and quarterly, according to the source of the supply.

Inspection.—Purification plants are inspected from two to four times a year.

Bottled waters.—Bottling plants are under the jurisdiction of the dairy and food division of the department of agriculture, but examinations are made and supplies are approved by the State department of health.

Ice industry.—No regulations have been passed governing the ice industry.

Sewage disposal.—The bureau of sanitary engineering acts in a supervisory and advisory capacity with regard to sewage disposal. Permits are required from the State board of health for the installation or extension of sewage-disposal plants.

Swimming pools.—As yet no legislation has been passed concerning the sanitation of swimming pools.

Camps and roadside water supplies.—The State department of health has passed rules and regulations concerning tourist and summer camps and roadside water supplies.

Shellfish.—The prevention of the pollution of shellfish is a function of this bureau. The State department of health must certify the sanitary production of shellfish going into interstate as well as intra-state commerce.

BUREAU OF CHILD HEALTH

Personnel.—The personnel of the bureau of child health in 1930 consisted of a director, a director and two assistant directors of nurses, a director each of the correspondence courses for mothers and for teachers, a director of midwife education, a director of the sanitation-education campaign, a director of mouth hygiene, six stenographers, a typist, and a clerk.

Prenatal clinics.—No prenatal clinics are conducted by the State department of health. During 1929, however, 94 conferences were held by physicians, 70 expectant mothers were registered, and 349 visits were made. Prenatal work is stimulated through the educational work of the bureau of child health.

Midwifery.—The instruction and supervision of midwives is a function of the State department of health. In 1918 the general assembly enacted a law giving official recognition to midwives. Under the 1920 law midwives are required to report within 10 days each birth attended; they must register and receive a permit signed by the State registrar of vital statistics and the local registrar. A course of eight lectures is given to midwives by a public-health nurse specially trained in midwifery.

Ophthalmia neonatorum.—The use of silver-nitrate solution in the eyes of the newborn is required. This solution is distributed free.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are licensed by the State department of public welfare.

Infant and preschool hygiene.—Prior to 1918, little had been done for child health in the State outside of the work of a few cities and counties. With the acceptance by the legislature in 1922 of the Sheppard-Towner Act, the State department of health directed its activities toward reducing the infant and maternal death rate. Local infant-welfare clinics for mothers and infants are conducted by the director of nurses or her assistants with the cooperation of the local public-health nurses. Through these conferences defects are noted and referred to private practitioners for correction. During 1929, 935 infant clinics were conducted by physicians and 8,761 children examined. Through nurse conferences, mothers are instructed in the feeding and care of children and the development of proper health habits.

School hygiene.—The West law passed in 1920 authorizes the board of supervisors of the counties and the councils of the cities and towns to make appropriations to provide for the health examination and physical education of school children and for the employment of school nurses, physicians, and physical directors. The law further provides that an amount not to exceed one-half of the annual salary of each physical director be paid by the State board of health, and that every normal school of the State give a course in health examination and physical education. The bureau of child health conducts a correspondence course for teachers in physical inspection of school children. (See p. 606.)

Public-health nursing.—In 1921 the division of public-health nursing was reorganized. Upon application the State board of health gives financial aid to any county desirous of promoting public-health nursing, in return for which the county obligates its nurse to give at least one-fourth of her time to maternity and infancy welfare work. Public-health nursing service is supervised by the director of public-health nursing under the supervision of the director of child health.

Eligibility requirements.—A State or local public-health nurse must be a graduate registered nurse and must have had at least a year's experience on a visiting-nurse staff under close supervision or a course in public-health nursing in a recognized school.

Number of public-health nurses.—There are 57 State public-health nurses and 155 public-health nurses not attached to the State department of health but maintained by cities, towns, and industrial concerns.

Dental hygiene.—Virginia was among the first States to place a dentist on the staff of its department of health and to devise a plan for including dentistry in its program of disease prevention.

Appropriation for dental work.—Under the provisions of the West law, the State department of health is authorized to contribute not more than \$500 a year for each county with the understanding that the various counties of the State will contribute an equal amount for the maintenance of dental clinics in the rural schools. These clinics are held for the purpose of filling, cleaning, or extracting the teeth of the school children. The clinics are approved by the State Dental Association. The work is done under the direction of the State department of health. Every child contributes toward the cost of the clinic in proportion to the amount of work to be done, provided he is able to make the contribution. The net cost, i. e., the difference between the fees collected and the total cost of the clinic, is paid equally by the State and county. These clinics are almost self-supporting. The State legislature has never made a separate appropriation for dental work. The funds used by the department of health have been segregated from the allotment for child hygiene.

Correspondence course for mothers.—A correspondence course for mothers was begun in 1923. Up to the close of 1929, 8,437 mothers had been enrolled for the course.

Correspondence course for teachers.—A correspondence course for teachers was begun in 1921. This course consists of lessons in health education, school hygiene, and physical inspection. Up to the close of 1929, 9,545 teachers had enrolled for the course.

BUREAU OF PUBLICITY

Personnel.—In 1930 the work of the bureau of publicity was carried on by a director.

Bulletin.—A monthly bulletin is published and special pamphlets are released from time to time.

Press service.—The bureau of publicity issues two or three notices weekly for the newspapers.

Equipment.—The State department of health owns a stereopticon, a moving-picture outfit, about 500 slides, 15 motion-picture films, and an auto truck with a Delco equipment and graphoscope.

Cooperation.—The State departments of health and of education cooperate in conducting a hygiene program in the schools. This program includes the medical inspection of school children and the sanitation of school buildings.

TABLE 233.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

VIRGINIA

Bureaus	1915	1916	1917	1918	1919	1920
Total budget.....	\$107,000	^{1 2} \$153,100	^{1 2} \$168,705	^{1 2 3} \$329,186	^{1 2 3} \$492,057	^{1 2 3} \$576,588
Total budget exclusive of tuberculosis sanatoria funds.....	56,000	64,600	67,705	99,915	135,358	236,208
State legislative budget exclusive of tuberculosis sanatoria funds.....	56,000	60,600	60,600	69,000	69,000	159,606
Bureau of administration.....	35,000	35,000	35,000	40,000	40,000	20,294
Bureau of vital statistics.....	10,365	10,776	12,009	12,065	11,273	21,010
Bureau of rural health work.....	5,000	^{1 2} 11,200	^{1 2} 14,305	^{1 2} 18,500	^{1 2 3} 63,483	^{1 2 3} 83,150
Bureau of epidemiology.....	5,743	6,200	5,000	—	—	5,000
Bureau of publicity.....	1,000	1,000	1,000	5,000	5,000	6,000
Tuberculosis sanatoria.....	51,000	88,500	101,000	229,271	356,699	340,380
Bureau of laboratories.....	—	—	—	2,500	2,500	10,000
Bureau of social hygiene.....	—	—	—	³ 22,415	³ 22,875	³ 36,904
Bureau of child health.....	—	—	—	2,500	2,500	¹ 34,600
Bureau of sanitary engineering.....	—	—	—	—	—	15,750
Town and camp sanitation.....	—	—	—	—	—	3,500
Malaria control.....	—	—	—	—	—	5,000

Bureaus	1921	1922	1923	1924	1925
Total budget.....	^{1 2 3} \$576,843	^{1 2 3 4} \$579,631	^{1 2 3 4} \$647,608	^{1 2 3 4} \$633,907	^{1 2 3 4 5} \$658,264
Total budget exclusive of tuberculosis sanatoria funds.....	233,666	275,862	291,965	303,189	328,255
State legislative budget exclusive of tuberculosis sanatoria funds.....	153,400	184,174	184,174	195,045	228,375
Bureau of administration.....	20,294	24,464	24,464	22,110	21,830
Bureau of vital statistics.....	21,010	25,090	25,090	27,685	26,285
Bureau of rural health work.....	^{1 2 3} 93,020	^{1 2 3} 91,199	^{1 2 3} 110,033	^{1 2 3} 112,024	^{1 2 3} 102,406
Bureau of epidemiology.....	5,000	5,000	5,000	5,000	5,000
Bureau of publicity.....	6,000	5,600	5,600	5,600	5,600
Tuberculosis sanatoria.....	343,177	303,769	355,643	330,718	329,999
Bureau of laboratories.....	¹ 18,100	¹ 23,100	^{1 2} 25,498	^{1 2} 34,466	^{1 2} 33,627
Bureau of social hygiene.....	³ 24,492	³ 14,915	³ 12,184	³ 3,992	³ 4,110
Bureau of child health.....	¹ 34,600	^{1 4} 63,594	^{1 4} 63,594	^{1 4} 63,574	^{1 4} 63,574
Bureau of sanitary engineering.....	15,750	15,450	15,450	15,200	16,200
Town and camp sanitation.....	3,500	750	750	750	750
Malaria control.....	5,000	5,000	5,000	5,000	5,000
Bureau of tuberculosis education and clinics.....	—	15,000	15,000	23,350	64,110

Bureaus	1926	1927	1928	1929	1930
Total budget.....	^{1 2 3 4 5} \$698,075	^{1 2 3 4 5} \$702,271	^{1 2 3 4 5} \$703,259	^{1 2 3 4 5} \$704,679	^{1 2 3 5} \$879,535
Total budget exclusive of tuberculosis sanatoria funds.....	417,055	421,051	438,549	439,399	603,485
State legislative budget exclusive of tuberculosis sanatoria funds.....	272,681	271,677	293,675	293,725	352,645
Bureau of administration.....	22,640	22,640	23,830	28,830	22,580
Bureau of vital statistics.....	27,861	27,357	30,450	30,500	33,935
Bureau of rural health work.....	^{1 2 3} 45,000	^{1 2 3} 45,000	^{1 2 3} 59,210	^{1 2 3} 59,210	^{1 2 3} 95,000
Bureau of epidemiology.....	5,000	5,000	10,000	10,000	10,975
Bureau of publicity.....	5,600	5,600	5,600	5,600	13,450
Tuberculosis sanatoria.....	281,020	281,220	264,710	265,280	276,050
Bureau of laboratories.....	^{1 2} 19,900	¹ 19,900	¹ 20,195	¹ 20,195	¹ 25,820
Bureau of social hygiene.....	7,000	7,000	10,000	10,000	2,500
Bureau of child health.....	^{1 4} 50,000	^{1 4} 50,000	^{1 4} 50,000	^{1 4} 50,000	¹ 57,380
Bureau of sanitary engineering.....	17,570	17,070	17,750	17,750	22,085
Town and camp sanitation.....	3,000	3,000	3,000	3,000	4,500
Malaria control.....	5,000	5,000	(⁵)	(⁵)	(⁵)
Bureau of tuberculosis education and clinics.....	64,110	64,110	63,640	63,640	64,420

¹ Local funds included. (See Table 234.)

² Rockefeller Foundation funds included. (See Table 234.)

³ U. S. Public Health Service funds included. (See Table 234.)

⁴ U. S. Children's Bureau funds included. (See Table 234.)

⁵ Discontinued.

⁶ Commonwealth funds included. (See Table 234.)

TABLE 234.—Total appropriations for State department of health, by years

VIRGINIA

Year	Total appropriation	Appropriation exclusive of tuberculosis sanatoria funds	Source of funds and amounts								
			State legislature ¹	U. S. Public Health Service	U. S. Children's Bureau	County	County towns	Other agencies	Rockefeller Foundation	Commonwealth	Tuberculosis sanatoria
1915	\$107,000	\$56,000	\$56,000								\$51,000
1916	153,100	64,600	60,600			\$2,200			\$1,800		88,500
1917	168,705	67,705	60,600			4,680		\$400	2,025		101,000
1918	329,186	99,915	69,000	\$22,415		2,800	\$450	1,450	3,800		229,271
1919	492,057	135,358	69,000	19,775		30,250	150	5,603	10,580		356,699
1920	576,588	236,208	159,606	25,352		36,500		4,000	10,750		340,380
1921	576,843	233,666	153,400	19,026		35,126	4,533	9,748	11,833		343,177
1922	579,831	275,862	184,174	11,215	25,574	38,744			16,155		303,769
1923	647,608	291,965	184,174	8,784	25,574	48,615	2,500		22,318		355,643
1924	633,907	303,189	195,045	7,146	25,574	41,253	12,000	1,500	20,671		330,718
1925	658,254	328,255	228,375	6,600	25,574	38,704	5,500	2,300	21,202		329,999
1926	698,075	417,055	272,681	7,500	25,574	85,800			19,000	\$6,500	281,020
1927	702,271	421,051	271,677	7,500	25,574	87,800			22,000	6,500	281,220
1928	703,259	438,549	293,675	7,500	25,574	84,500			20,800	6,500	264,710
1929	704,679	439,399	293,725	7,500	25,574	85,300			20,800	6,500	265,280
1930	879,535	603,485	352,645	7,500		218,840			18,000	6,500	276,050

¹ Exclusive of tuberculosis sanatoria funds.

WASHINGTON

STATE BOARD OF HEALTH

Organization.—The director of health and four other physicians are appointed by the governor, with the advice and consent of the senate to constitute the State board of health. The members of the State board of health must be experienced in matters of health and sanitation.

Term of office and compensation.—No definite term of office of the board members is specified. They are appointed and removed at the discretion of the governor. The members do not receive any compensation. Traveling expenses are paid when serving on the board.

Meetings.—Semiannual meetings are held each year and special meetings may be called by the director of health.

EXECUTIVE OFFICER

Legal qualifications.—The director of health, who is appointed by the governor with the consent of the senate, must be an experienced physician. He is chosen from or outside the membership of the board and serves as chairman of the board.

Term of office and salary.—The executive officer serves for four years and he receives a yearly salary of \$5,000 and traveling and other expenses incurred while on business of the board.

Powers and duties.—The director of health is the chairman and executive officer of the State board of health and has charge and supervision of the department of health. The director appoints the State registrar of vital statistics, who is ex officio the secretary of the board of health. The director also has the power to appoint and employ

Washington - Organization of the State Department of Health in 1930

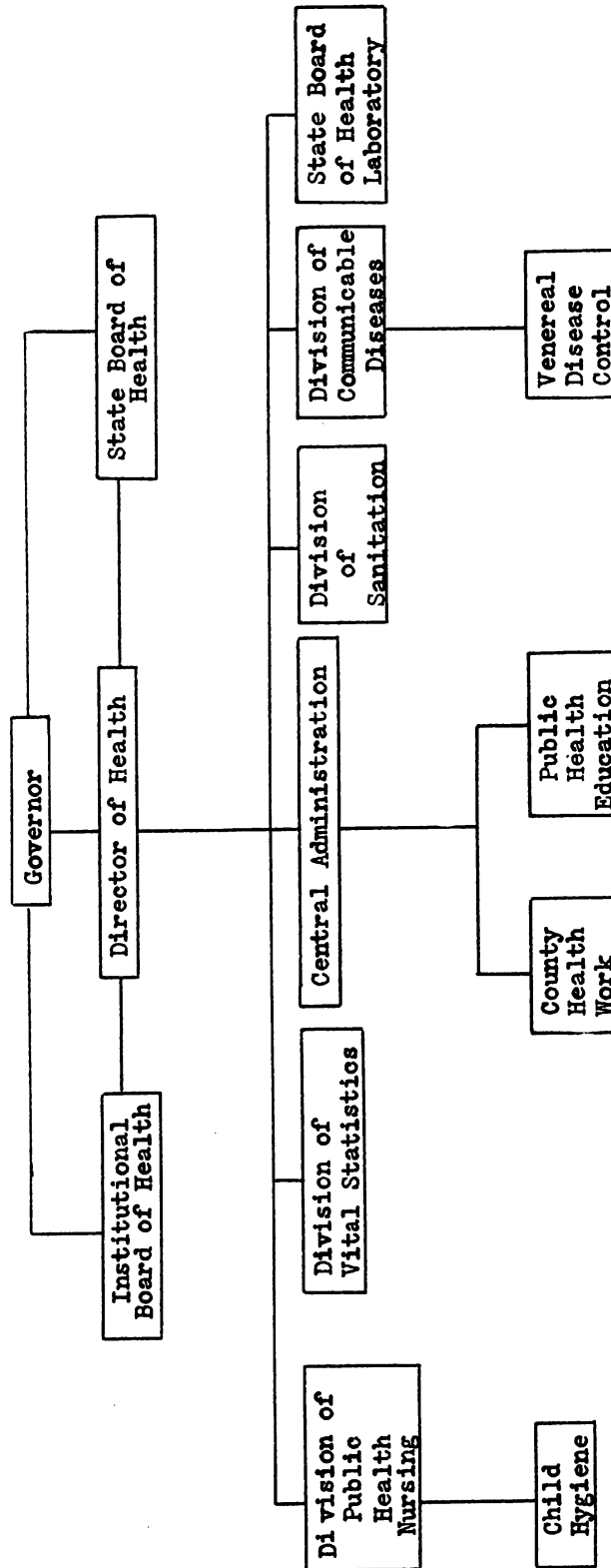


FIGURE 65

such deputies, scientific experts, sanitary engineers, quarantine officers, local registrars, and clerical assistants as may be necessary to carry on the work of the department of health.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State board of health has judicial power only in connection with communicable diseases, in which case the opinion of the director of health is final. The State board of health has legislative power to adopt and enforce rules and regulations concerning sanitation, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. The control of milk supplies and food adulteration are functions of the department of agriculture. The supervision of midwives and the enforcement of the medical practice law are functions of the department of licenses.

INSTITUTIONAL BOARD OF HEALTH

In addition to the State board of health there is an institutional board of health. The director of health, the head physicians of the State custodial school and of each of the State hospitals for the insane, and one woman physician are appointed by the governor to constitute the institutional board of health. It is the duty of this board to visit each institution and to advise the superintendent regarding the general policy of custody, care, and treatment of the inmates.

APPROPRIATIONS

Appropriations to the department of health are made according to divisions for each biennium. The legislature meets in January of odd years. The fiscal year of the health department ends December 31.

TABLE 235.—*Divisions of the State department of health in 1930*¹

WASHINGTON

Divisions	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$13,284	2	\$5,000	\$1,920	\$6,920
Division of communicable diseases.....	6,380	3	5,000	1,680	6,680
Division of vital statistics.....	7,568	4	(3)	5,220	5,220
State laboratory.....	10,070	6	(4)	7,740	7,740
Division of sanitation.....	8,736	3	4,200	1,320	5,520
Division of public-health nursing.....	3,962	2	2,400	1,500	3,900

¹ Total appropriation, \$50,000; total appropriation exclusive of tuberculosis sanatoria funds, \$50,000; State legislative appropriation, \$50,000.

² Officials included whose time is devoted to more than one activity.

³ The sanitary engineer is the State registrar.

⁴ The director of the division of communicable diseases is also the chief of the laboratory staff.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the director of health and a secretary.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in State administration does not affect the tenure of the personnel in the department.

Disbursement of funds.—In general funds are disbursed by the State treasurer upon the approval of the State auditor and the department of business control.

Purchases.—Supplies are purchased through the department of business control.

Full-time county health work.—At the close of 1930 there were eight full-time health organizations in the State. In addition to the full-time county units, there are local organizations in the incorporated towns.

Supervision.—The State department of health acts in a supervisory capacity toward the local boards of health. Upon failure of the local board to act, however, or in case no local board of health has been established, the director of health assumes control and conducts the work at the expense of the local government.

TABLE 236.—Data on full-time counties operating throughout 1929

WASHINGTON

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Nonmedical health officers	Inspectors	Nurses	Clerks
Yakima.....	1911	76,031	25,362	\$0.33	\$49,043,000	\$0.0005	Yakima (21,743).....	2	2	2	2	1
Spokane.....	1915	149,560	10,828	.07	117,387,000	.0001	Spokane (114,409).....	1	.....	.....	1	1
King.....	1919	456,089	30,941	.07	291,200,000	.0001	Seattle (360,555).....	1	.....	1	3	1
Walla Walla.....	1921	28,349	13,762	.49	35,724,000	.0004	Walla Walla (15,926).....	1	.....	2	1	1
Chelan.....	1922	30,563	15,845	.52	22,408,000	.0007	Wenatchee (11,094).....	1	.....	1	2	1
Snohomish.....	1926	77,743	9,601	.13	43,668,000	.0002	Everett (30,272).....	1	.....	.....	1	.....
Whitman.....	1926	28,344	6,217	.22	45,121,000	.0001	.....	1	.....	.....	2	.....
Total.....	.....	846,679	112,556	.13	604,551,000	.0002	.....	8	2	6	12	5

Public-health education.—Public-health educational work and the publicity of the State department of health are conducted by the director of health.

Bulletins.—A weekly bulletin is issued by the division of communicable diseases; a bimonthly bulletin is issued by the division of public-health nursing.

Press service.—Occasional contributions are sent to the Associated Press and the United Press.

Equipment.—The State board of health owns a stereopticon, 100 slides, 8 motion-picture films, and a portable exhibit on diphtheria.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—In 1930 the personnel of the division of communicable diseases consisted of an epidemiologist, assisted by a secretary and a clerk, who devoted part time to this division.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the State department of health by city and county health officers.

Quarantine.—Quarantine measures are under the control of the city and county health officers.

Smallpox.—Smallpox vaccination is not compulsory for school children, except in communities where smallpox exists.

Emergency fund.—A general emergency fund to be used at the discretion of the governor is provided by the legislature.

Tuberculosis control.—The board of county commissioners of any county has the power to establish, provide, and maintain hospitals and to employ visiting nurses for the care and treatment of persons suffering from tuberculosis.

Sanatoria.—There are no State tuberculosis sanatoria. Five tuberculosis hospitals, with a total capacity of 452 beds are maintained by counties; one with a capacity of 280 beds is maintained by the city of Seattle. In 1930 the State appropriated \$137,500 to be divided between these six tuberculosis hospitals. The State pays \$5 per week toward the care of each indigent patient admitted to these institutions. This appropriation is not made through the State department of health. In addition, there are two private sanatoria with a total capacity of 110 beds.

Clinics.—No tuberculosis clinics were conducted by the State department of health in 1929.

Venereal-disease control.—The division of venereal-disease control was discontinued in 1921. The State department of health still carries on some educational activities in venereal-disease control, however. It supplies salvarsan to health officers at cost and provides for laboratory examinations.

Clinics.—Three venereal-disease clinics are maintained under the supervision of the State department of health. City boards of health also conduct venereal-disease clinics.

Treatments.—During 1929, 24,854 treatments, of which 6,682 were salvarsan, were administered through the State department of health. These treatments are free to indigent patients; a charge of \$1.15 is made to patients who can pay.

DIVISION OF VITAL STATISTICS

Personnel.—In 1930 the personnel of the division of vital statistics consisted of the State registrar of vital statistics, who is the sanitary engineer, and receives no salary as registrar. He was assisted by an assistant registrar and two clerks.

Registration districts.—The primary registration districts are the cities of the first and second class and the counties exclusive of such cities.

Local registrars.—The local registrars in the towns and counties are appointed by the State registrar. The city health officers are the local registrars in the cities. Local registrars are paid a fee of 25 cents by the local authorities for each record issued.

Registration area.—Washington was admitted to the registration area for deaths in 1908 and to the registration area for births in 1917.

Reporting of deaths.—In 1929 no record was made of the percentage of deaths reported. Deaths must be reported to the local registrar before burial and to the State registrar on the 10th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in the State of Washington.

Reporting of births.—In 1929 no record was made of the percentage of births recorded. Births must be reported to the local registrar within 10 days and to the State registrar on the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths after the seven-months' interogestation.

Blanks and postage.—The State board of health supplies the blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the local registrar refers the case to the coroner in a county of the first class ¹² or to the prosecuting attorney in a county other than the first class.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians, midwives, and undertakers are licensed by the State department of licenses.

STATE BOARD OF HEALTH LABORATORY

Personnel.—The chief of the laboratory is the epidemiologist in charge of the division of communicable diseases. In 1930 he was assisted by a bacteriologist and four technicians.

Branch and private laboratories.—There are no branch laboratories and the State board of health has no supervision over private laboratories.

¹² Counties with a population of 125,000 to 210,000 are counties of the first class. Counties with a population of 210,000 or more are class A counties.

Special laboratories.—No laboratories other than the central laboratory have been established by the health department.

Activities.—During 1929, 38,573 examinations were made. These were mainly Wassermann blood tests and examinations of tuberculosis sputa and diphtheria cultures. A summary of diagnostic activities for 1929 is given on pages 99 to 100.

Fees.—No fee is charged for any service performed by the laboratory.

Biological products.—Typhoid vaccines are manufactured by the central laboratory. Other biological products are purchased and distributed at cost to the health officers by the division of communicable diseases. A detailed analysis of biologicals distributed in 1929 is given on page 103.

Research.—No research work was carried on by the laboratory during 1929.

DIVISION OF SANITATION

Personnel.—A sanitary engineer is in charge of the division of sanitation. In 1929 he was assisted by two clerks who serve also in the division of communicable diseases.

Water supplies.—Plans for the installation of new or the extension of old water supplies must be submitted to the State department of health for approval.

Bottled waters.—No special legislation has been passed concerning bottled waters.

Analysis and inspection.—Public water supplies are not analyzed and purification plants are not inspected regularly.

Ice industry.—No regulations have been passed governing the ice industry.

Sewage disposal.—All plans providing for new sewer systems or the alteration of existing systems must be submitted to the State department of health for approval.

Camps, swimming pools, and roadside water supplies.—Rules and regulations have been passed concerning the sanitation of tourist and summer camps, swimming pools, and roadside water supplies.

Shellfish sanitation.—The prevention of the pollution of shellfish is a function of the division of sanitation.

Food handlers.—According to legislation passed in 1928, a medical examination is required of persons handling meat or meat products.

Slaughterhouses.—The inspection of slaughterhouses is a function of the division of sanitation.

DIVISION OF PUBLIC-HEALTH NURSING

Organization.—A division of public-health nursing was established by the State department of health in 1927.

Personnel.—In 1930 an advisory nurse, was in charge of the division, assisted by a secretary.

Maternal hygiene.—Maternity and infancy letters for expectant mothers are distributed by this division. Expectant mothers are reported to the division by the physicians of the State. No prenatal clinics are maintained by the health department.

Midwifery.—No supervision or instruction is given to midwives.

Ophthalmia neonatorum.—Physicians and midwives are required to use a prophylactic solution in the eyes of the new born.

Lying-in hospitals and orphanages.—There are no lying-in hospitals. Orphanages are not licensed by the department of health.

Infant and preschool clinics.—During 1929, 90 itinerant clinics were maintained by the health department in 33 counties. These clinics were conducted by pediatricians who were paid \$10 per day. The advisory nurse in charge of the division assists at the clinics. A total of 1,626 infants and 3,975 preschool children were examined. The clinics are now being conducted by the full-time county health units.

School hygiene.—A number of the local boards of health conduct school examinations. The full-time county health units also have been active in this work.

Public-health nursing.—Counties are authorized to employ nurses for the care and treatment of persons suffering from tuberculosis. All county health nurses report monthly. Their activities are under the supervision of the division of public-health nursing.

Eligibility requirements.—There are no legal requirements for public-health nurses, but the standards of the national organization of public-health nursing are advocated.

TABLE 237.—Total budget, State legislative budget for health work, and budgets by divisions, by years

WASHINGTON

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$23,500	\$23,500	\$25,805	\$25,805	¹ \$58,557	¹ \$58,558	\$43,115	\$43,115
State legislative budget.....	23,500	23,500	25,805	25,805	46,057	56,057	43,115	43,115
Central administration.....	11,300	13,180	14,765	13,385	18,478	13,618	21,115	20,535
Division of communicable diseases.....	3,600	3,600	3,600	4,080	4,800	4,800	6,160	6,160
Division of vital statistics.....	3,000	3,000	3,540	3,540	4,380	5,640	6,120	6,120
State laboratory.....	1,200	1,320	1,500	2,400	3,500	5,900	4,620	5,200
Division of sanitation.....	2,400	2,400	2,400	2,400	2,400	3,600	5,100	5,100
Division of venereal diseases.....	-----	-----	-----	-----	¹ 25,000	¹ 25,000	(²)	-----

¹ United States Public Health Service funds included. (See Table 238.)

² Included under division of public-health nursing.

TABLE 237.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

WASHINGTON—Continued

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	¹ \$68,303	¹²⁸⁸ \$69,017	¹²⁸⁸ \$67,021	²⁸ \$55,000	² \$49,500	² \$49,500	² \$55,000	\$50,000
State legislative budget.....	45,416	45,416	45,000	40,000	44,500	44,500	50,000	50,000
Central administration.....	² 24,946	¹ 16,116	¹ 18,221	17,010	14,592	14,592	13,284	13,294
Division of communicable diseases.....	6,250	6,250	6,250	6,250	5,750	5,750	6,380	6,380
Division of vital statistics.....	² 5,975	² 6,240	¹ 6,240	5,730	5,758	5,758	7,568	7,568
State laboratory.....	6,000	6,300	6,540	7,260	9,666	9,666	10,070	10,070
Division of sanitation.....	6,060	6,150	6,330	3,750	5,347	5,347	8,736	8,736
Division of venereal diseases.....	¹ 5,775	¹ 2,567	¹ 642	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
Division of child hygiene.....	² 13,298	² 10,745	² 7,969	² 15,000	² 5,000	² 5,000	² 5,000	(³)
Division of public-health nursing.....					3,387	3,387	3,962	3,962

¹ United States Public Health Service funds included. (See Table 238.)² United States Children's Bureau funds included. (See Table 238.)³ Included under division of public-health nursing.⁴ Discontinued in 1921.⁵ Local funds included. (See Table 238.)⁶ Rockefeller Foundation funds included. (See Table 238.)TABLE 238.—*Total appropriations for State department of health, by years*

WASHINGTON

Year	Total appropriation	Source of funds and amounts					
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	County	County towns	Rockefeller Foundation
1915.....	\$23,500	\$23,500					
1916.....	23,500	23,500					
1917.....	25,805	25,805					
1918.....	25,805	25,805					
1919.....	58,557	46,057	\$12,000				
1920.....	58,557	46,057	12,500				
1921.....	43,115	43,115					
1922.....	43,115	43,115					
1923.....	68,303	45,416	2,887	\$20,000			
1924.....	69,017	45,416	1,283	10,000	\$6,923	\$2,895	\$2,500
1925.....	67,021	45,000	321	10,000	6,306	2,895	2,500
1926.....	55,000	40,000		15,000			
1927.....	49,500	44,500		5,000			
1928.....	49,500	44,500		5,000			
1929.....	55,000	50,000		5,000			
1930.....	50,000	50,000					

WEST VIRGINIA

PUBLIC-HEALTH COUNCIL

Organization.—The public-health council of West Virginia consists of the commissioner of health and six other members, all of whom are appointed by the governor with the consent of the senate. Each member must have been graduated from a medical school in good standing and must have practiced medicine five years.

Term of office and compensation.—The term of office is four years, terms of three members expire every two years. The members are paid \$10 per diem when in session and actual traveling expenses.

Meetings.—Three to five meetings are held annually upon the call of the secretary on request of the council.

West Virginia - Organization of the State Department of Health in 1930

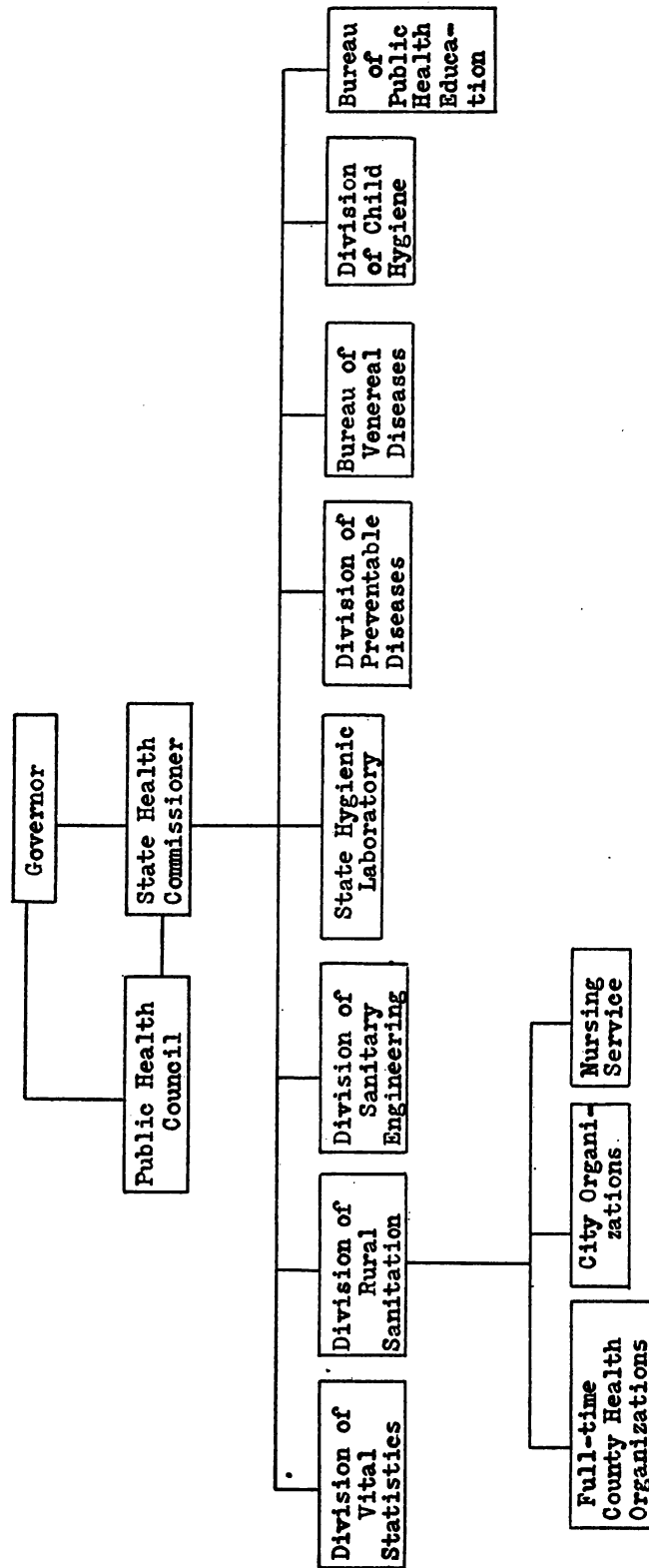


FIGURE 66

EXECUTIVE OFFICER

Legal qualifications.—The State health commissioner is appointed by the governor with the consent of the senate. He is appointed from outside the public-health council and is ex officio a member thereof. He must be a physician skilled in sanitary science and experienced in public administration.

Term of office and salary.—The term of office of the commissioner is four years. He receives a yearly salary of \$4,800 and traveling expenses.

POWERS OF THE STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has judicial, legislative, and executive power concerning sanitation, sewage disposal, food adulteration, nuisances, communicable diseases, quarantine, enforcement of the medical practice law, and midwifery. Milk supplies are under the joint control of the State department of health and the State department of agriculture.

APPROPRIATIONS

The State legislature makes an annual appropriation for the current general expenses of the State department of health. This general appropriation is subdivided in July of each year according to the requirements of the various divisions of the department. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 239.—Divisions of the State department of health in 1930 ¹

WEST VIRGINIA

Divisions and Bureaus	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$22,335	3	\$4,800	\$3,120	\$7,920
Division of rural sanitation.....	40,050	2	4,600	2,400	7,000
Division of preventable diseases.....	(²)	(³)	(³)	(³)	(³)
Bureau of venereal diseases.....	11,000	2	3,300	1,800	5,100
Division of vital statistics.....	13,700	8	3,700	8,340	12,040
State hygienic laboratory.....	16,315	6	3,300	7,500	10,800
Division of sanitary engineering.....	16,200	4	3,700	7,400	11,100
Division of child hygiene.....	17,500	5	4,000	7,300	11,300
Bureau of public health education.....	3,700	1	2,000	-----	2,000

¹ Total appropriation, \$318,214; total appropriation exclusive of tuberculosis sanatoria funds, \$318,214; State legislative appropriation, \$140,800.

² Includes \$10,000 for free distribution of typhoid vaccine and diphtheria toxin-antitoxin.

³ Included under bureau of venereal diseases.

CENTRAL ADMINISTRATION

Personnel.—The commissioner of health is the administrative and executive head of the State department of health. In 1930 he was assisted by a secretary and a clerk.

Civil service.—The employees of the health department are not civil-service appointees. A change in State administration does not affect the tenure of personnel in the department. The commissioner, with the approval of the council, has the authority to appoint, remove, and fix the compensation of all employees.

Disbursement of funds.—Funds are disbursed by the State treasurer on order of the commissioner of health, countersigned by the State auditor.

Purchases.—Purchases are made upon direct order of the State department of health.

Food and drugs.—The enforcement of the food and drugs law is assigned to the health department, but this is not an active function in this State.

Shellfish.—The prevention of shellfish pollution is a function of the State department of health.

DIVISION OF RURAL SANITATION

Personnel.—Rural sanitation is supervised by a director. He was assisted by a secretary in 1930.

County health work.—Any county court or municipal council has the power and authority to provide for the employment of a full-time health officer and the expenses of his administration. The county or municipality may levy a county or municipal tax of not exceeding 3 cents on \$100 valuation as shown by the last assessment. No special appropriation is made for the division of rural sanitation.

Full-time organizations.—At the close of 1930 there were 15 full-time county health units and 4 whole-time city health departments in operation. Full-time nursing was provided in seven counties.

Supervision.—The State department of health exercises supervisory control over the local health organizations. If any local board of health fails or refuses to enforce necessary health laws and regulations, the commissioner of health may take charge at the expense of the local government. In such cases, failure to act may be considered sufficient cause for the removal of the local health officer or local health board.

TABLE 240.—Data on full-time counties operating throughout 1929

WEST VIRGINIA

County	Organized	1929 population	Total budget	Per capita tax	Assessed valuation of property, 1922	Mill tax	1929 population of cities over 10,000 population on Jan. 1, 1930	Number of whole-time personnel				
								Health officers	Inspectors	Nurses	Clerks	Others
Logan.....	1922	56,783	\$14,612	\$0.26	\$39,703,000	\$0.0004		1	1	1	1	1
Marion.....	1922	65,407	15,300	.23	108,508,000	.0001	Fairmont (22,612)	1	1	2	1	1
Preston.....	1923	29,418	11,000	.37	36,164,000	.0003		1	1	1	1	1
Hancock.....	1923	27,643	9,220	.33	21,952,000	.0004		1	1	1	1	1
Harrison.....	1924	77,776	12,300	.16	141,586,000	.0001	Clarksburg (28,760)	1	1	2	1	1
Gilmer.....	1924	10,407	8,000	.77	18,285,000	.0004		1	1	1	1	1
Ohio.....	1926	71,145	30,806	.43	125,134,000	.0002	Wheeling (61,194)	1	1	3	1	3
Kanawha.....	1926	153,904	18,300	.12	191,022,000	.0001	Charleston (58,328)	1	1	1	1	1
Brooke.....	1926	23,754	10,000	.42	30,800,000	.0003		1	1	1	1	1
Wood.....	1926	54,960	12,000	.22	70,095,000	.0002	Parkersburg (28,649)	1	2	1	1	1
Boone.....	1926	23,572	10,000	.42	29,343,000	.0003		1	1	3	1	1
Berkeley.....	1927	27,677	10,000	.36	29,318,000	.0003	Martinsburg (14,621)	1	1	1	1	1
Fayette.....	1928	70,880	10,000	.14	54,365,000	.0002		1	1	1	1	1
Raleigh.....	1928	65,504	17,200	.26	52,679,000	.0003		1	1	2	1	1
Total.....		758,830	188,738	.25	948,954,000	.0002		14	9	20	14	3

DIVISION OF PREVENTABLE DISEASES

Funds—No special appropriation is provided for the division of preventable diseases. Funds expended are derived from the general administration fund and from the appropriation for the bureau of venereal diseases.

Reporting of diseases.—The local health officers make weekly reports to the State department of health of cases of communicable disease. A monthly compilation also is submitted by each local health officer.

Quarantine.—Quarantine measures are under the control of local boards of health.

Smallpox vaccination.—Smallpox vaccination can not be made compulsory by local health departments except in case of threatened epidemic. However, the supreme court has ruled that one case constitutes a threatened epidemic. Independent school districts, of which there are 17 in the State, may require vaccination as a prerequisite for admission to schools.

Emergency fund.—No emergency fund is provided for use in case of an extensive outbreak.

Tuberculosis control.—The control of tuberculosis is a function of the division of preventable diseases.

Sanatoria.—There are three State tuberculosis sanatoria with a total capacity of 550 beds, and four county sanatoria with a total capacity of 118 beds. The State department of health acts in an advisory capacity only. Fiscal control of these sanatoria is under the

State board of control. A general State hospital fund provides for patients who can not pay. The amount appropriated for the State sanatoria in 1930 was \$455,000.

Clinics.—No tuberculosis clinics were conducted by the State health department during 1929, but nine clinics were maintained by local health organizations.

BUREAU OF VENEREAL DISEASES

Personnel.—The bureau of venereal diseases in 1919 was recognized as an integral part of the division of preventable diseases. The staff of the bureau of venereal diseases in 1930 consisted of a director, who is a member of the United States Public Health Service, an associate director, and a stenographer.

Program.—The bureau of venereal diseases is charged with law enforcement and has authority to compel quarantine. The venereal disease program of the State department of health embraces three phases: An educational program pertaining to treatment, sex education, law enforcement, etc.; medical program concerned with the organization and maintenance of clinics, the supplying of arsphenamine for the treatment of cases in clinics and of charity cases through physicians and institutions; and a law enforcement program concerned with making surveys and furnishing evidence to local law-enforcing agencies.

Clinics.—Private agencies assist in carrying on the educational activities by means of films, exhibits, etc. There were 15 venereal disease clinics conducted by the local health departments under the supervision of the State department of health in 1929.

Treatments.—A total of 30,740 free treatments of which 13,010 were salvarsan was administered during 1929.

DIVISION OF VITAL STATISTICS

The division of vital statistics was not a part of the State department of health until 1921.

Personnel.—The personnel in 1930 consisted of a director, a secretary and six clerks.

Registration district.—Each city, incorporated town, and magisterial district is a primary registration district.

Local registrars.—The local registrars of these districts are chosen by the State registrar. They are paid a fee of 25 cents by the county for each certificate submitted to the State department of health.

Registration area.—West Virginia was admitted to the registration areas for both births and deaths in 1925.

Reporting of deaths.—In 1929, 90 per cent of the deaths occurring in the State were reported; of these, 70 per cent were reported by undertakers and 30 per cent by others. Deaths must be reported to the

local registrars before burial and to the State registrar by the 10th of the month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, 92 per cent were reported by physicians and 8 per cent by midwives. Births must be reported to the local registrars within 10 days and to the State registrar by the 10th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the local registrars provide the postage.

Unlawful death.—In case death is thought to be caused by unlawful or suspicious means, the matter is referred to the coroner.

Burial permits.—Burial permits are required and are issued by the local registrars.

Licensing.—Physicians and midwives are licensed by the public health council, undertakers are licensed by the State board of embalmers.

STATE HYGIENIC LABORATORY

Personnel.—The personnel in 1930 consisted of a director, three technicians, a clerk, and two helpers.

Branch and private laboratories.—No branch laboratories have been established in the State. The State department of health has no control over private laboratories.

Special laboratories.—No laboratories other than the central laboratory are maintained by the State department of health.

Activities.—During 1929, 29,675 examinations were made by the laboratory. The examinations were mainly Kahn tests, water analyses, and examinations of gonococcus smears and tuberculosis sputa. A summary of diagnostic activities is given on pages 99 to 100.

Fees.—Fees are charged for commercial water examinations, urinalyses, analyses of stomach contents, and for Wassermann tests when possible. These fees revert to the general State fund.

Biological products.—Typhoid vaccine and silver-nitrate ampules are manufactured by the laboratory. Diphtheria antitoxin is purchased and issued free through the central administrative division of the health department. A summary of the amounts distributed in 1929 is given on page 103.

DIVISION OF SANITARY ENGINEERING

Personnel.—The division of sanitary engineering was organized in 1915. In 1930 the personnel consisted of a chief sanitary engineer, two assistant engineers, and a stenographer.

Public water supplies.—As provided by law in 1919, the State department of health has supervision over public water supplies. A written permit must be obtained from the State health commissioner before any new water system can be built. There are no effective measures for controlling pollution of existing water supplies unless an epidemic occurs. In that case legislative and executive power is given to the department by law.

Bottled waters.—In 1917 a regulation was passed providing that no bottled waters might be sold without a permit from the State department of health.

Analysis.—Public water supplies are analyzed at the State hygienic laboratory at monthly intervals. Ground water supplies which are known definitely to be safe are analyzed only at intervals of three months. The public water supplies in the larger cities, where daily tests are made in the city laboratories, are analyzed periodically by the division of sanitary engineering.

Inspection.—Water-purification plants are inspected by the sanitary engineers on an average of two or three times a year. The division of sanitary engineering endeavors to keep in close touch with these plants through weekly reports. About 80 towns have protected their water supplies solely by chlorinating plants. The operating condition of the apparatus and the rate of disinfection are reported each week to the division of sanitary engineering.

Ice industry.—No regulations have been passed concerning the ice industry.

Sewage disposal.—A law passed in 1919 provides that all new plans for sewerage systems and sewage-disposal plants must be submitted to the State department of health for approval. This regulation gives the division of sanitary engineering power concerning the discharge of sewage into streams and its treatment. In some cases complete sewage-treatment plants are required. Where the streams are sufficiently large to handle the sewage satisfactorily they are used with no treatment whatever.

Camps.—The sanitation of tourist and summer camps is a function of the State department of health.

Swimming pools.—Swimming pools are under the supervision of the State department of health. Plans for the construction of pools must be submitted to the division of sanitary engineering for approval.

Roadside water supplies.—A system of designating certified water supplies along the main automobile routes is now in operation.

Milk laws.—The enforcement of the milk laws is carried on by the departments of agriculture and health. In cooperation with the local health departments, this division enforces pasteurization and inspects dairies. The Federal standard milk ordinance was adopted by the public health council in 1927 as the standard for West Virginia.

DIVISION OF CHILD HYGIENE

Personnel.—The staff of the division of child hygiene in 1930 consisted of a director, two field advisory nurses, and two clerks.

Program.—The program adopted by the division of child hygiene includes a motherhood correspondence course which urges medical supervision from beginning pregnancy; a health educational service through the establishment of local permanent health centers; and demonstration combined preschool and prenatal health conferences or clinics.

Prenatal and maternal hygiene.—The work of the prenatal clinics is carried on by the local agencies in combination with preschool clinics. The personnel of the health department assists with plans and service where necessary.

Midwifery.—Midwives must be licensed by the public health council.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported at once to the local health officer. The installation of a 1 per cent solution of silver nitrate in the eyes of the new born is required. The silver nitrate is furnished by the State department of health.

Lying-in hospitals and orphanages.—There are no lying-in hospitals. Orphanages are licensed by the children's welfare department.

Infant and preschool hygiene.—During 1929, 535 preschool clinics were conducted through the local health organizations, and 5,277 children were examined. The policy of the division of child hygiene is to keep the personnel of the State department as small as possible and to use all available funds allowable in cooperative local programs in an effort to develop a sense of local responsibility for health problems and their solutions.

School hygiene.—A mandatory law for independent school districts and a permissive law for other school districts requires the medical examination of school children. These medical examinations are conducted by health officers, by physicians employed by the local boards of education, by volunteer medical services, and by public-health nurses in many places where no other provision is made. Parents are notified of defects on blanks furnished by the health department. The work is usually financed by the local boards of education. When done by staff nurses of full-time health units it is financed by county courts. A small number of nurses are financed by local volunteer funds during pioneer stages.

Public-health nursing.—Advisory nursing services, through the staff of the division of child hygiene, is available to any public-health nurse in the State upon request. Where advisory service is desired it is the policy of the division to see that the necessary organization for an efficient public-health nursing program is completed, to assist with the planning and inauguration of local programs, and to give the nurses employed all necessary assistance. Communities and counties are assisted in securing qualified public-health nurses.

Eligibility requirements.—A State public-health nurse must have had public-health training and experience. If a local public-health nurse is to work alone or as the chief nurse of a unit staff, she must have had public-health training and experience. If the nurse is employed as a member of a nursing staff under a supervisor, the minimum requirement is graduation from an accredited training school for nurses and registration in the State.

BUREAU OF PUBLIC-HEALTH EDUCATION

Personnel.—In 1930 the director of the bureau of public-health education was assisted for part of the year only.

Bulletin.—A bulletin is issued quarterly.

Press service.—When the bureau of public-health education was created, relationship with the press was established by sending a weekly release to every paper in the State. A column is sent once a month to the country weeklies. Illustrated feature articles are prepared for the Sunday papers. The Associated Press and the reporters on the local city papers also receive articles for publication.

Equipment.—The State department of health owns a stereopticon, a moving-picture machine, 6 sets of slides, 5 films, 6 sets of strip film, and 10 series of posters pertaining to all phases of health.

Cooperation.—The State departments of health and of education cooperate in providing better health conditions in schools and in planning health courses. The county-institute programs, prepared by the West Virginia department of education, provide for an address on health by an official of the State health department.

TABLE 241.—Total budget, State legislative budget for health work, and budgets by divisions, by years

WEST VIRGINIA

Divisions and bureaus	1915	1916	1917	1918	1919	1920
Total budget.....	\$21,804	\$23,831	\$28,000	\$33,000	\$46,452	\$58,027
State legislative budget.....	21,804	23,831	28,000	33,000	33,000	48,577
Bureau of venereal diseases.....					13,277	14,000
Division of rural sanitation.....					350	4,900

Divisions and bureaus	1921	1922	1923	1924	1925
Total budget.....	\$68,140	\$145,047	\$148,470	\$185,680	\$200,462
State legislative budget.....	52,490	85,330	91,493	104,697	106,889
Bureau of venereal diseases.....	25,800	14,508	13,115	22,385	21,348
Division of rural sanitation.....	5,500	7,000	7,300	7,720	10,470
Division of vital statistics ¹	11,200	11,500	13,100	14,288	16,592
Central administration.....		16,988	17,766	15,697	17,868
Full-time county unit.....		52,500	52,500	80,700	82,430
State hygienic laboratory.....		10,000	10,000	11,000	12,000
Division of sanitary engineering.....		12,300	12,300	12,300	12,300
Division of child hygiene.....		9,438	14,862	23,416	23,400
Bureau of public-health education.....				4,800	5,250

¹ U. S. Public Health Service funds included. (See Table 242.)

² Rockefeller Foundation funds included. (See Table 242.)

³ Local funds included. (See Table 242.)

⁴ U. S. Children's Bureau funds included. (See Table 242.)

⁵ Not a part of State health department until 1921.

TABLE 241.—*Total budget, State legislative budget for health work, and budgets by divisions, by years—Continued*

WEST VIRGINIA—Continued

Divisions and bureaus	1926	1927	1928	1929	1930
Total budget.....	^{1 2 3 4} \$202,336	^{1 2 3 4} \$217,630	^{1 2 3 4} \$299,607	^{1 2 3 4} \$303,177	^{1 2 3} \$318,214
State legislative budget.....	109,800	109,800	119,800	119,800	140,800
Bureau of venereal diseases.....	21,400	21,700	18,500	18,000	11,000
Division of rural sanitation.....	^{1 2} 23,000	^{1 2} 23,308	^{1 2} 30,000	^{1 2} 30,000	^{1 2} 40,050
Division of vital statistics ⁵	11,118	10,800	11,000	11,300	13,700
Central administration.....	14,500	15,000	16,000	20,500	22,335
Full-time county unit.....	^{1 2 3} 95,465	^{1 2 3} 107,067	^{1 2 3} 185,586	^{1 2 3} 189,156	^{1 2 3} 203,414
State hygienic laboratory.....	12,000	12,000	12,700	24,000	16,315
Division of sanitary engineering..	13,320	16,320	16,000	18,400	16,200
Division of child hygiene.....	⁴ 26,971	⁴ 26,371	⁴ 24,871	⁴ 25,871	⁴ 17,500
Bureau of public-health education.	5,000	5,000	5,380	5,125	3,700

¹ U. S. Public Health Service funds included. (See Table 242.)² Rockefeller Foundation funds included. (See Table 242.)³ Local funds included. (See Table 242.)⁴ U. S. Children's Bureau funds included. (See Table 242.)⁵ Not a part of State health department until 1921.TABLE 242.—*Total appropriations for State department of health, by years*

WEST VIRGINIA

Year	Total appropriation	Source of funds and amounts				
		State legislature	U. S. Public Health Service	U. S. Children's Bureau	County	Rockefeller Foundation
1915.....	\$21,804	\$21,804				
1916.....	23,831	23,831				
1917.....	28,000	28,000				
1918.....	33,000	33,000				
1919.....	46,452	33,000	\$13,277			\$175
1920.....	58,027	48,577	7,000			2,450
1921.....	68,140	52,490	12,900			2,750
1922.....	145,047	85,330	12,254	\$1,038	\$43,850	2,575
1923.....	148,470	91,493	9,915	7,212	30,000	9,850
1924.....	185,680	104,697	14,185	1,500	52,250	13,048
1925.....	200,462	106,889	12,646	14,855	51,720	14,352
1926.....	202,336	109,800	4,800	19,871	54,400	13,465
1927.....	217,630	109,800	5,362	19,871	65,976	16,621
1928.....	299,607	119,800	5,516	19,871	135,145	19,275
1929.....	303,177	119,800	5,850	19,871	140,600	17,056
1930.....	318,214	140,800	4,675		155,238	17,501

WISCONSIN

STATE BOARD OF HEALTH

Organization.—The governor, subject to the confirmation of the senate, appoints the seven members of the State board of health. No legal qualifications are specified. Since the creation of the board, however, it has been composed of the leading, high-class medical men of the State.

Term of office and compensation.—The members serve for a period of seven years, the term of one member expiring each year. The members receive \$10 per day and traveling expenses while in session.

Meetings.—Two meetings are held each year, and special meetings may be held on call of the president of the board.

Wisconsin - Organization of the State Department of Health in 1930

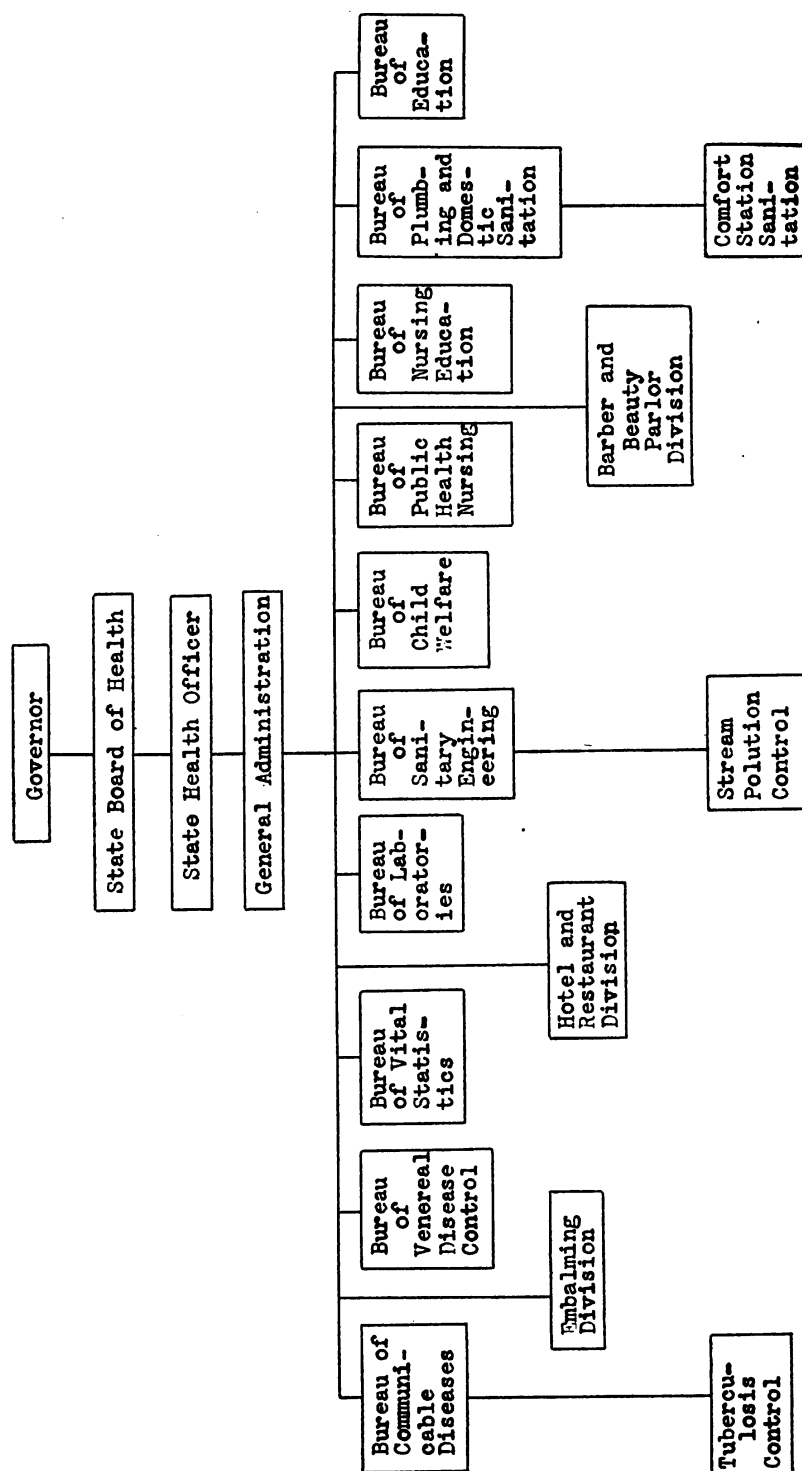


FIGURE 67

Executive committee.—The executive committee of the State board of health is composed of three members chosen by the board. This committee meets occasionally and is authorized by statutes to constitute a part of the laboratory committee.

EXECUTIVE OFFICER

Legal qualifications.—The State health officer is elected by the State board of health either from its own number or from outside. No legal qualifications are required.

Term of office and salary.—The State health officer holds his office at the discretion of the board and is subject to removal by a vote of five members at a regular meeting. He receives a yearly salary of \$6,540, \$6,000 as State health officer and \$45 per month from a license fund. He receives necessary traveling expenses within the State. The consent of the governor is necessary for expenses outside the State.

POWERS OF THE STATE HEALTH DEPARTMENT

Judicial, legislative, and executive powers.—The State department of health has quasi judicial power except in the cases dealing with sanitation and quarantine. It is authorized to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. The control of milk supplies and food adulteration are functions of the State dairy and food department. The enforcement of the medical practice law and the licensing of midwives are duties of the State board of medical examiners.

APPROPRIATIONS

An annual appropriation is made by the State legislature for the State department of health, which is allotted to the various bureaus. Moneys received from the licensing of embalmers, barbers, plumbers, operators and managers of beauty parlors, from permits to conduct hotels and restaurants, and from the registration of nurses are paid into the general fund of the State and are appropriated therefrom for the branches of work from which they were respectively derived. The legislature meets in January of odd years. The fiscal year of the health department ends June 30.

TABLE 243.—Bureaus of State department of health in 1930¹

WISCONSIN

Bureaus	Total budgets, by bu-reaus	Number of per-sonnel	Salary of director	Salary of other per-sonnel	Total sal-aries
General administration.....	\$55,500	11	\$6,540	\$24,220	\$30,760
Health work among Indians.....	15,000	3		6,100	6,100
Bureau of communicable diseases.....	13,300	3	3,500	3,000	6,500
Bureau of venereal-disease control.....	36,370	21	(²)	23,000	23,000
Bureau of vital statistics.....	17,560	12	3,600	13,320	16,920
Bureau of laboratories.....	³ 43,533	⁴ 24	5,400	39,590	44,990
Bureau of sanitary engineering.....	29,000	14	4,500	21,410	25,910
Bureau of child welfare.....	31,000	6	3,500	10,800	14,300
Bureau of public-health nursing.....	20,000	5	3,500	7,500	11,000
Bureau of nursing education.....	15,000	6	3,600	7,490	11,090
Bureau of education.....	(⁵)	2	3,000	1,800	4,800
Bureau of plumbing and domestic sanitation.....	22,000	5	4,000	10,800	14,800
Hotel and restaurant division.....	32,000	7	3,000	13,020	16,020
Barber and beauty-parlor division.....	32,200	8	3,300	12,860	16,160
Embalming division.....	1,750	(⁶)	(⁶)	(⁶)	(⁶)

¹ Total appropriation, \$253,703; total appropriation exclusive of tuberculosis sanatoria funds, \$352,313; State legislative appropriation, \$254,363; State legislative appropriation including fees, \$352,313.

² Director of bureau of communicable diseases.

³ Of this amount \$39,533 is specifically appropriated to the university for the laboratory and \$9,000 is appropriated for the cooperative laboratories and 1 branch laboratory.

⁴ Of this number 17 are employed at the central laboratory.

⁵ Prorated through various bureaus.

⁶ Included under general administration.

GENERAL ADMINISTRATION

Personnel.—In 1930 the general administration personnel consisted of the State health officer, the assistant State health officer, 5 deputy State health officers, 2 secretaries, and 2 clerks.

Civil service.—The employees of the State department of health are civil-service appointees. A change in State administration does not affect the tenure of personnel in the department.

Disbursement of funds.—All State funds are disbursed through the general administration. The State health officer, under the direction of the State board of health, is the disbursing agent.

Purchases.—Supplies are purchased on requisitions through the bureau of purchases.

Local health organizations.—There are no county health organizations in Wisconsin. A law was passed in 1858 providing for a board of health for each town, village, and city except cities of the first class. Such boards are authorized to appoint their own health officers; When a health officer fails to perform the duties of his office, the State department is authorized to remove him. Every two years the mayor of each city nominates a regular licensed physician to act as health commissioner.

Deputy State health officers.—According to statutory provision, the State board of health has divided the State into five sanitary districts and appointed a deputy State health officer for each district. These deputies are licensed practitioners of medicine and are required to devote their entire time to public-health work. The entire State is

subdivided into 1,785 health units, each with a board of health and a health officer. Each deputy health officer is required to keep himself informed of the work of all local health officers in his district; to assist local authorities in perfecting the legal organizations of their boards of health; to enforce quarantine measures; to enforce the laws and rules of the State board of health; to promote campaigns for preventive measures, such as smallpox vaccination, toxin-antitoxin, and goiter prevention; to enforce the abatement of nuisances, both public and private; to advise county public-health committees in outlining and directing the work of county nurses; to make sanitary surveys; to give physical examinations and educational talks on health in boys' and girls' camps; to give physical examinations in high schools, normal schools, and at the State fair, demonstrating the necessity for and benefits derived from an annual physical examination of the apparently healthy individual; to investigate and report on the sanitary conditions of road camps and other labor camps; to investigate reports of crippled, mentally defective, and delinquent children; to assist the bureau of vital statistics in promoting efficient registration of marriages, births, and deaths; to assist the bureau of communicable diseases in conducting epidemiological investigations following outbreaks of diphtheria, scarlet fever, typhoid fever, poliomyelitis, etc.; to assist local authorities in establishing a diagnosis in disputed cases of communicable diseases; to assist the bureau of communicable diseases in checking up delinquents afflicted with venereal disease and enforcing the other provisions of the venereal-disease law; and to maintain a comprehensive educational campaign in each district by means of public-health talks before school-board conventions, etc. The law enforcement work of these deputies embodies the prosecution of local boards of health or health officers for the failure to diagnose, report, or quarantine cases of communicable diseases, for violations of the quarantine, venereal diseases, and vital statistics laws, and for violations of any other public-health statutes or rules or regulations of the State board of health or health officer, when such local boards of health or health officers neglect or refuse to enforce such statute, rule, or regulation after due notice by the deputy health officer or by the State board of health.

Permissive county health law.—The 1929 legislature passed a law authorizing county boards to employ a full-time county health officer. Up to the close of 1929 no full-time county units had been organized.

Supervision.—The State department of health has the power to make and enforce rules and regulations governing the duties of all health officers and health boards.

Health work among Indians.—In 1925 an appropriation was made for public-health work and for the investigation and prevention of disease among the Indians of the State. Three nurses have been

employed for this work. One, located at the reserve, carries on her work directly with the Indians; another, located at Wisconsin Rapids and working with the Indians scattered in about nine counties, carries out her work through the mission schools, where the Indian school children are examined; the third is located at Ashland.

Licensing.—The State board of health administers laws providing for the examination and licensing of plumbers, embalmers, barbers, and operators of beauty parlors. Moneys received in this way are used for the examination, licensing, and regulation of embalmers, barbers, and beauty-parlor shops, respectively. Hotels and restaurants are also licensed by the department of health.

Sales.—All moneys received by the State department of health from the sale of quarantine signs, placards, blanks, etc., are included in the fund from which such publications and materials are purchased.

BUREAU OF COMMUNICABLE DISEASES

Personnel.—In 1930 the staff of the bureau of communicable diseases consisted of a director, a stenographer, and a clerk.

Reporting of diseases.—The local health officers report cases of communicable diseases to the State department of health once a week, and, in cases of emergency, by telegram. Cases of venereal disease are reported directly to the State department of health.

Quarantine.—The local boards of health have control of quarantine measures. In case the local health officer fails to act, the State department of health takes charge of the work.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children, except when a case of smallpox occurs in the school district.

Emergency fund.—An emergency fund of \$7,500 for epidemics may be expended at the discretion of the governor and attorney general.

Tuberculosis control.—The control of tuberculosis is an activity of the bureau of communicable diseases.

State sanatorium.—One State tuberculosis sanatorium with a capacity of 229 public beds is maintained under the supervision of the State board of control. In 1930, \$203,850 was appropriated to maintain this sanatorium. Seventeen county sanatoria have a total bed capacity of 1,329. Joint State and county aid is provided for all indigent patients. In addition, there are two private sanatoria with a capacity of 80 beds.

Clinics.—No tuberculosis clinics were conducted by the State department of health in 1929. Four clinics were conducted by local organizations.

Nursing service.—All county public-health nurses do some tuberculosis-control work.

BUREAU OF VENEREAL-DISEASE CONTROL

Personnel.—The control of venereal diseases is under the direction of the director of the bureau of communicable diseases. In 1930 he was assisted in this work by 2 lecturers, 7 social workers, 9 physicians who devoted part-time services to the clinics, a stenographer, and a typist.

Clinics.—Seven venereal-disease clinics are maintained under the supervision of the State department of health.

Treatments.—During 1929, 17,432 treatments were administered by the State department of health. Treatments are administered free to indigents.

Activities.—The bureau of venereal-disease control receives reports from physicians, investigates cases of delinquents, compels treatment, furnishes arsenicals to all indigents, makes examinations, and employs lecturers. The deputy State health officers do the field work in the control of venereal disease and arrange for commitments.

BUREAU OF VITAL STATISTICS

Personnel.—The State health officer is the State registrar of vital statistics. In 1930 the assistant registrar, assisted by a statistician and 10 clerks, carried on the work of the bureau.

Registration district.—The towns, incorporated villages, and cities are the primary registration districts of the State.

Local registrars.—In the towns and villages the clerk, who is elected, is ex officio the local registrar. In the cities the health officer, who is appointed by the local governing body, serves as local registrar. Local registrars receive a fee of 20 cents for each birth, death, and marriage record and 15 cents for each monthly report of no births, etc. Fees are paid by the county upon certification by the State registrar.

Registration area.—Wisconsin was admitted to the registration area for deaths in 1908 and to the registration area for births in 1917.

Reporting of deaths.—In 1929, 98 per cent of the deaths occurring in the State were reported; of these, 98 per cent were reported by undertakers and 2 per cent by others. Deaths must be reported to the local registrar before interment and to the State registrar by the 7th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 96 per cent of the births occurring in the State were reported; of these, 94.9 per cent were reported by physicians, 3.7 per cent by midwives, and 1.4 per cent by others. Births must be reported to the local registrar within five days and to the State registrar by the 7th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State department of health supplies the blanks for recording the returns and the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is reported to the district attorney, and he may order a coroner's inquest.

Burial permits.—Burial permits are necessary and are issued by the local registrars or their deputies.

Licensing.—Physicians and midwives are licensed by the State board of medical examiners; embalmers are licensed by the State board of health.

BUREAU OF LABORATORIES

Organization.—The laboratories are divided into three groups: The State laboratory of hygiene, located on the university campus and financed by an appropriation made directly to the board of regents by the State legislature or the university; the branch State laboratory of hygiene, located at Rhinelander and financed by money appropriated to the State department of health; and the cooperative laboratories, financed by the State from money appropriated to the State department of health for that purpose, and by the local communities.

Personnel.—In 1930 the personnel of the bureau of laboratories consisted of a director, a chemist, a bacteriologist, a secretary, and 13 assistants at the central laboratory, a director for the branch laboratory, and six directors for the cooperative laboratories located in different sections of the State.

Cooperative laboratories.—The six cooperative laboratories are located at Superior, Wausau, Green Bay, Oshkosh, Beloit, and Kenosha. The State contributes \$1,000 to each laboratory. The directors of these laboratories are appointed by, and can not be removed without the consent of, the State board of health. These laboratories are supervised by the director of the central State laboratory of hygiene.

Private laboratories.—The health department has no supervision over the private laboratories maintained in the State. If a private laboratory desires to do public health work, however, it must meet the requirements of the State board of health.

Special laboratories.—No special laboratories are maintained by the health department.

Activities.—During 1929, 93,229 specimens were examined at the central laboratory, consisting mainly of tuberculosis sputa, water samples for analysis, and diphtheria cultures. Wassermann tests are made at the State psychiatric institute. In 1929, 63,444 such tests were made. The tests are supplied free to physicians in the

State. A summary of examinations made during 1929 is given on pages 99 to 100.

Fees.—All examinations are made free of charge.

Biological products.—Antityphoid, paratyphoid, pertussis, and autogenous vaccines are manufactured at the central laboratory and distributed free to physicians throughout the State. Silver-nitrate ampules are prepared at the central laboratory and distributed free to physicians, midwives, and hospitals. Other biologicals may be purchased by physicians and local authorities at certain stations throughout the State under the provisions of a contract with the State board of health. No record was kept of the amounts issued during 1929.

BUREAU OF SANITARY ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering in 1930 consisted of the State sanitary engineer, a chemical engineer, a biologist, a chemist, eight assistant sanitary engineers, and two stenographers.

Public water supplies and sewage-disposal systems.—The State department of health must approve plans for public water supplies and sewage-disposal systems and may order designated changes to be made.

Stream pollution.—Legislation has been passed concerning lake and stream pollution. Cities are now authorized to charge rents for the use of sewerage facilities, treatment of sewage, and maintenance of sewage-disposal plants. Metropolitan sewer districts have been created.

Analysis and inspection.—Surface-water supplies are analyzed monthly, shallow-well supplies every three months, and deep-well supplies every six months. Water-purification plants are inspected biennially.

Bottled waters.—The legislation governing bottled waters is the same as that relating to public water supplies.

Ice supplies.—The health department has control over ice supplies.

Camps, swimming pools, and roadside water supplies.—Rules and regulations have been passed by the health department concerning the sanitation of camps, swimming pools, and roadside water supplies.

Shellfish.—The prevention of shellfish pollution is a function of the health department.

Stream pollution.—Since the latter part of 1925 the bureau of sanitary engineering has given special cooperation to the conservation commission in the control of stream pollution. The legislature appropriates \$10,000 annually for this purpose. In 1927 a special appropriation of \$15,000 for the prevention and control of stream pollution was made to the State board of health. The work carried

on under the supervision of the health department is directed by a sanitary engineer.

BUREAU OF CHILD WELFARE

Personnel.—In 1930 the personnel of the bureau of child welfare consisted of a director, two maternity and infancy physicians, a demonstrator of infant-hygiene courses, a stenographer, and a typist-clerk.

Prenatal and child-hygiene clinics.—Prenatal and child-hygiene clinics are held by physicians in various parts of the State; they donate full or part time service to the work, which is supervised by the staff of the bureau of child welfare. During 1929, 541 regular prenatal and child-hygiene conferences or health centers were held. A total of 6,739 infants, 5,864 preschool children, and 861 children over 6 years of age were examined at these clinics. In addition, 153 prenatal and 553 postnatal patients were given advice.

Midwifery.—The midwife problem in Wisconsin is negligible.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported to the local health officer within six hours. The law requires the use of a 1 per cent solution of silver nitrate in the eyes of all new-born babies. The State department of health furnishes this solution free of charge to health officers, physicians, and midwives.

Lying-in hospitals and orphanages.—Lying-in hospitals are licensed by the State board of health. Orphanages and "boarding homes" for children are licensed by the State board of control.

Child-welfare truck.—A truck equipped to offer prenatal and infant hygiene services to cases and to children under 6 years of age in the rural part of the State, identical with those carried on in the regular child-welfare centers, was first sent into the field in 1922. The presumably well child only is accepted for examination, which includes weighing, measuring, and a thorough physical examination. Whenever defects are found a complete copy of the records is sent to the family physician that he may know what advice has been given. Indigent cases may be cared for at the Wisconsin State General Hospital when referred by the county judge. Local dentists and doctors often give services to patients who can pay partial fees.

Educational work.—The bureau of child welfare has initiated a distinct phase of educational work. It consists of a course in infant hygiene, prepared and organized by the bureau, which has been made an integral part of the education system of the State. Sets of equipment necessary to give the course are loaned to schools unable to provide their own equipment. The plan calls for a minimum course of 10 hours, given preferably in prehigh-school grades, and forming part of the course of study in home economics and physical

education. A total of 4,261 certificates was issued to students completing the course in 1929. An organizer devotes full time to the work. The bureau publishes a manual of infant hygiene for use in schools as a textbook in giving the course and publishes a handbook for teachers of infant hygiene. Approximately 22,000 pieces of maternity and child-health literature are mailed each month; a total of 264,000 were issued during 1929.

School hygiene.—No school-hygiene director is employed by the State department of health and no legislation concerning the medical examination of school children has been passed. The medical examination of school children is entirely under the jurisdiction of local authorities. County boards of supervisors may employ public-health nurses to act as health supervisors in schools which have no inspection either by a physician or a school nurse. The bureau of public-health nursing acts in an advisory capacity to the local nurses of the State who do this work.

BUREAU OF PUBLIC-HEALTH NURSING

History.—Public-health nursing was established by the State board of health in September, 1919, as a part of the bureau of child welfare and was reorganized in 1921 by the legislature. In September, 1924, public-health nursing was nominally separated from the bureau of child welfare and designated as the bureau of public-health nursing.

Personnel.—The personnel of the bureau of public-health nursing in 1930 consisted of a director and six public-health nurses, three of whom devote full time to health work among the Indians, all of whom cooperate with the bureau of child welfare.

Eligibility requirements.—The requirements for a State public-health nurse as defined by the civil service commission are: The equivalent of high-school training and graduation from the nurses' training school of an accredited hospital; proper registration; thorough familiarity with general nursing and public-health work; and at least three years' experience, two of which shall have been in full-time public-health work. Qualifications of local public-health nurses are determined by an examining committee composed of 3 persons, 1 from the State board of health, 1 from the department of public instruction, and 1 appointed by the board of nurse examiners.

Number of nurses.—In 1929, 114 organizations in the State employed 311 full-time public-health nurses. This gave a ratio of 1 nurse to 177 square miles, or 1 nurse to every 9,000 persons. This number does not include hospital, social-service, dispensary, nor industrial nurses.

BUREAU OF NURSING EDUCATION

The bureau of nursing education was established in 1921 for the registration and examination of nurses.

Personnel.—The personnel of the bureau of nursing education consisted in 1930 of a director, an assistant director, two stenographers, and two clerks.

Committee on nursing education.—The bureau functions under the State board of health through a committee of 10, consisting of the State health officer, the director of nursing education, and representatives from the State nursing association, the State league of nursing education, the State hospital association, the Wisconsin conference of the Catholic hospital association, the State medical society, and the bureau of public-health nursing of the State department of health. This committee passes on all the work of the director, who is selected by the committee and appointed by the board of health, and who serves as secretary to the committee.

Registration fees.—Nurses are charged a registration fee of \$10, which is paid into the general fund of the State and forthwith appropriated as a revolving fund for the use of the bureau for registering nurses, supervising training schools, and examining nurses.

BUREAU OF EDUCATION

Personnel.—In 1930 the work of the bureau of education was carried on by a director and an illustrator. All expenditures for this bureau are prorated through the various bureaus of the health department.

Bulletins.—Bulletins are issued each quarter, and special publications from time to time.

Press service.—News releases pertaining to the work of all bureaus of the State department of health are sent to the Wisconsin daily papers through press associations and other correspondents.

Equipment.—The State department of health owns a stereopticon, 2 motion-picture machines, 600 slides, 29 motion-picture films, and several exhibits.

Cooperation.—The bureau of education works in conjunction with the department of agriculture and markets and the college of agriculture in issuing press material on milk supplies, rabies control, proper disposal of wastes, and other rural problems where the health factor is involved. The bureau also cooperates with the State real-estate brokers' board in promoting the sanitation of lake and stream shore plats, with the conservation commission in relation to the control of stream pollution, with the department of public instruction and other educational agencies in organizing school courses in infant care, and with any State department where joint effort may be effective.

BUREAU OF PLUMBING AND DOMESTIC SANITATION

Personnel.—The personnel of the bureau of plumbing and domestic sanitation consisted in 1930 of a director, three inspectors, and a stenographer.

Activities.—The examination and licensing of plumbers, the supervision and inspection of plumbing, and the adoption and enforcement of minimum uniform standards prescribed in the State plumbing code is required by law. The bureau aims, through the supervision of plumbers and plumbing work, to introduce a higher standard of sanitation, to protect the public against installations that menace health and safety, and to secure safer water supplies and waste-disposal facilities in rural and urban habitations.

Comfort-station supervision.—The State department of health has secured legislation concerning the sanitary conditions of public comfort stations. Assistance in selecting the site in order to promote the highest degree of sanitation and safety as a measure for protection against disease is rendered by the department of health.

HOTEL AND RESTAURANT DIVISION

Personnel.—The personnel of the hotel and restaurant division consisted in 1930 of a director, 4 inspectors, 1 chief clerk, and 1 stenographer.

Activities.—This division licenses and inspects hotels and restaurants, establishes and enforces rules and regulations governing their operation, maintains a campaign of education among proprietors and employees relative to higher standards of cleanliness and safety in these establishments, and cooperates with other departments of the State having similar objectives.

BARBER AND BEAUTY-PARLOR DIVISION

Personnel.—In 1930, the personnel of the barber and beauty-parlor division consisted of a director, four inspectors, a supervisor of beauty-culture schools, and two stenographers.

Activities.—This division examines and licenses barbers and beauty-parlor managers, periodically inspects the sanitary conditions of barber shops and beauty parlors to determine their compliance with the rules and regulations governing the operation of these shops, and carries on general supervision over barber and beauty-culture schools.

Table 244.—Total budget, State legislative budget for health work, and budgets by bureaus, by years

WISCONSIN

Bureaus	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$64,081	\$55,840	\$69,072	\$81,739	\$84,862	\$159,671	\$165,410	\$229,160
State legislative budget ¹	64,081	55,840	69,072	81,739	84,862	134,296	140,410	215,296
General administration.....	36,500	35,000	35,000	35,000	35,000	50,000	50,000	51,000
Bureau of vital statistics.....		9,800	10,340	10,820	12,660	13,020	13,220	16,180
Bureau of laboratories ¹	2,500	2,500	2,500	7,950	7,950	7,950	7,950	7,950
Laboratory appropriation to university.....	11,115	10,445	10,685	12,599	12,434	12,734	13,220	17,945
Bureau of plumbing and domestic sanitation ⁴	13,966	13,906	13,867	13,885	13,164	12,379	17,074	15,734
Bureau of venereal-disease control.....						¹ 75,375	¹ 27,728	¹ 41,250
Bureau of sanitary engineering.....						10,000	10,000	10,000
Bureau of child welfare.....						5,000	5,000	21,100
Bureau of communicable diseases.....								13,300
Bureau of nursing education ⁴								4,851
Health work among Indians.....								
Hotel and restaurant division ⁴								
Barber and beauty-parlor division ⁴								

Bureaus	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$228,464	\$249,665	\$250,326	\$255,226	\$295,328	\$323,543	\$325,903	\$352,313
State legislative budget ¹	217,526	216,312	220,084	226,852	267,576	295,791	298,151	352,313
General administration.....	51,000	51,000	58,432	55,989	52,500	55,500	55,500	55,500
Bureau of vital statistics.....	14,260	15,880	17,180	17,560	17,560	17,560	17,560	17,560
Bureau of laboratories ¹	7,950	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Laboratory appropriation to university.....	19,635	22,435	22,845	23,605	28,735	34,163	34,163	39,533
Bureau of plumbing and domestic sanitation ⁴	20,742	20,425	20,670	25,736	21,242	21,410	21,642	22,000
Bureau of venereal-disease control.....	41,250	¹ 36,370	¹ 36,370	¹ 36,370	36,370	36,370	36,370	36,370
Bureau of sanitary engineering.....	10,000	17,000	17,000	14,000	14,000	29,000	29,000	29,000
Bureau of child welfare.....	¹ 42,038	¹ 50,752	¹ 50,752	¹ 50,752	¹ 50,751	¹ 50,751	¹ 50,751	31,000
Bureau of communicable diseases.....	13,300	13,300	13,300	13,300	13,300	13,300	13,300	13,300
Bureau of nursing education ⁴	7,891	9,339	9,708	10,111	12,002	13,305	14,506	15,000
Health work among Indians.....				8,000	8,000	8,000	8,000	15,000
Hotel and restaurant division ⁴				20,281	20,836	21,256	21,689	32,000
Barber and beauty-parlor division ⁴				25,791	28,592	31,488	31,982	32,200
Bureau of public-health nursing.....								20,000
Embalming division.....								1,750

¹ U. S. Public Health Service funds included. (See Table 245.)² License fees are included. (See Table 245.)³ Appropriation to State department of health for laboratory service.⁴ Supported entirely by fees.⁵ U. S. Children's Bureau funds included. (See Table 245.)

TABLE 245.—Total appropriations for State departments of health, by years

WISCONSIN

Year	Total ap- propria- tion	Source of funds and amounts				
		State legisla- ture	U. S. Public Health Service	U. S. Chil- dren's Bureau	License fees	State legisla- ture, plus fees
1915	\$64,081	\$50,115			\$13,966	\$64,081
1916	55,840	39,000			16,840	55,840
1917	69,072	39,000			30,072	69,072
1918	81,739	44,450			37,289	81,739
1919	84,862	44,450			40,412	84,862
1920	159,671	94,450	\$25,375		39,846	134,296
1921	165,410	94,450	25,000		45,960	140,410
1922	229,160	161,100	13,864		54,196	215,296
1923	228,464	161,100		\$10,938	56,426	217,526
1924	249,665	155,670	5,602		27,752	60,642
1925	260,326	155,670	2,490		27,752	64,414
1926	255,226	161,170	622		27,752	65,682
1927	295,328	189,905			27,752	77,671
1928	323,543	213,333			27,752	82,458
1929	325,903	213,333			27,752	84,818
1930	352,313	253,708			98,610	352,313

WYOMING

STATE BOARD OF HEALTH

Organization.—The governor, by and with the advice and consent of the senate, appoints five persons to constitute the State board of health. Three of the members must be resident licensed physicians.

Term of office and compensation.—The term of office of the members is four years. Appointments are so arranged that the term of office of not more than three members shall expire the same year. The members of the State board of health receive \$10 a day when in session and necessary traveling expenses.

Meetings.—Three regular meetings are held each year. Special meetings may be called by the governor or the State health officer.

EXECUTIVE OFFICER

Legal qualifications.—The governor designates one of the members of the State board of health as State health officer and secretary of the board. He must be a physician in the State and a specialist in the treatment of infectious and contagious diseases and in public-health work. He is required to give his whole time to his office.

Term of office and salary.—The State health officer serves for four years. He receives a yearly salary of \$4,000 and actual traveling expenses when engaged in the duties of his office.

POWERS OF STATE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The State department of health has no judicial power. It is authorized to make and enforce rules and regulations concerning sanitation in general, water pollution,

Wyoming - Organization of the State Department of Health in 1930

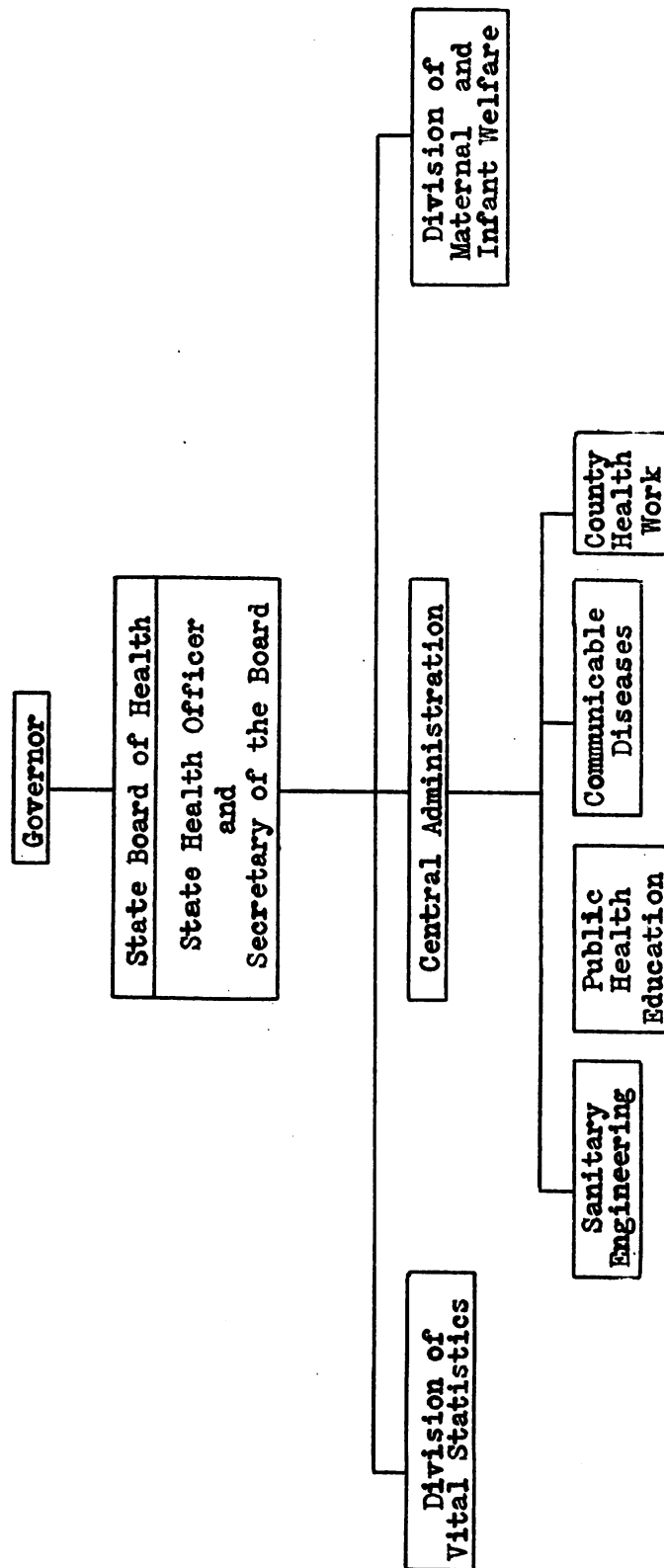


FIGURE 68

sewage disposal, nuisances, communicable diseases, and quarantine. The control of milk supplies and food adulteration are functions of the department of agriculture. The enforcement of the medical practice law is an activity of the State board of medical examiners. Midwifery is not a problem in Wyoming.

APPROPRIATION

A biennial appropriation is made by the State legislature to the State department of health. The legislature meets in January of odd years. The fiscal year of the health department ends March 31.

TABLE 246.—*Divisions of the State department of health in 1930*¹

WYOMING

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$15,000	2	\$4,000	\$1,800	\$5,800
Division of vital statistics.....	(²)	³ 2	(⁴)	1,320	1,320
Division of maternal and infant welfare.....	(²)	³ 2	(⁴)	1,800	1,800

¹ Total appropriation, \$15,000; total appropriation exclusive of tuberculosis sanatoria funds, \$15,000; State legislative appropriation, \$15,000.

² Included under central administration.

³ State health officer is director.

CENTRAL ADMINISTRATION

Personnel.—The State health officer is also the State registrar of vital statistics. He directs the control of communicable diseases, carries on the sanitary engineering activities, and supervises the division of maternal and infant welfare. He was assisted by a secretary in 1930.

Civil service.—The employees of the State department of health are not civil-service appointees. A change in the State administration affects the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed on vouchers through the State treasurer's office with the approval of the State auditor.

Purchases.—Supplies are purchased on requisition to the State board of supplies.

County health work.—There are no county or city boards of health in the State. The State board of health appoints a part-time county health officer for each county, who serves under the direct supervision of the State health officer. Each county health officer receives \$8 per day and actual traveling expenses when engaged in the duties of his office; when engaged for a shorter period than one-half day at any one time his compensation is \$4. Salaries of county health officers are paid by the respective counties upon the approval of the State health officer. It is the duty of the county health officers to enforce the rules and regulations of the State board of health in preventing the spread of disease.

Communicable diseases.—Under the statutes of the State, the State health officer has full authority to act in the suppression and control of communicable diseases.

Reporting of diseases.—Each county health officer reports cases of communicable diseases to the State health officer each week.

Quarantine.—Quarantine measures are under the control of the county health officers supervised by the State health officer.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children in this State.

Emergency fund.—No emergency fund is provided for use in the case of a severe or extensive outbreak.

Tuberculosis control.—The State department of health takes no active part in the control of tuberculosis and maintains no clinics or dispensaries. The Wyoming tuberculosis association conducts clinics for tuberculous patients.

Tuberculosis sanatorium.—There is one State tuberculosis sanatorium, with a capacity of 29 beds, maintained by the State board of charities and reform. Seventy-five thousand one hundred dollars has been appropriated for the sanatorium to cover a period of two years.

Venereal-disease control.—The control of venereal diseases is one of the duties of the county health officers. The reporting of such diseases has been emphasized.

Clinic.—No venereal-disease clinics were conducted and no treatments were administered by the health department during 1929.

Sanitary engineering.—The State health officer has charge of the work usually carried on by a division of sanitary engineering.

Public water supplies and sewerage systems.—The State department of health has general supervision and care of public water supplies and may request an examination of public waters. The department consults with and advises the authorities of cities and towns concerning their water supplies and sewerage systems. Plans for such systems must be submitted to the State department of health for approval.

Bottled waters.—No specific legislation has been passed concerning bottled waters.

Analysis and inspection.—Public water supplies are analyzed when requested, and purification plants are inspected once a month.

Ice industry.—No regulations have been passed governing the ice industry.

Camps, swimming pools, and roadside water supplies.—The board has passed rules and regulations concerning the sanitary conditions of camps, swimming pools, and roadside water supplies.

Public-health education.—The State health officer directs the public-health educational activities of the State.

Press service.—The newspapers cooperate with the State department of health.

Bulletins.—A bimonthly bulletin is published, and special pamphlets are issued from time to time.

Equipment.—The State board of health does not have any educational equipment, such as motion-picture films, exhibits, etc.

Cooperation.—The State departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF VITAL STATISTICS

Personnel.—The State health officer is the registrar of vital statistics. In 1930 he was assisted by a clerk.

Registration districts.—Each city, town, and county subdivision is a primary registration district.

Local registrars.—The local registrars are appointed by the State board of health. They are paid a fee of 50 cents by the county on vouchers approved by the State health officer for each record issued.

Registration area.—Wyoming was "admitted to the registration areas for both births and deaths in 1922.

Reporting of deaths.—In 1929, 98 per cent of the deaths occurring in the State were reported; of these, 98 per cent were reported by undertakers and 2 per cent by others. Deaths must be reported to the local registrar before burial and to the State registrar by the 10th of each month.

Legal standards.—The model law, the standard certificate, and the international list of the causes of death are used in this State.

Reporting of births.—In 1929, 90 per cent of the births occurring in the State were reported; of these, 98 per cent were reported by physicians and 2 per cent by others. Births must be reported to the local registrars within 10 days and to the State registrar by the 10th of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The State board of health supplies the blanks and the postage for the vital-statistics reports.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the State board of medical examiners; undertakers are licensed by the State board of embalmers. Midwives are not licensed.

DIVISION OF MATERNAL AND INFANT WELFARE

Personnel.—In 1930 the personnel of the division of maternal and infant welfare consisted of the State health officer as director and one nurse who served full time.

Prenatal clinics.—Ten prenatal conferences were held by the health department during 1929.

Midwifery.—Midwifery is not a problem in this State.

Ophthalmia neonatorum.—The State requires physicians to use prophylactic measures in caring for the eyes of the newborn.

Lying-in hospitals and orphanages.—There are no maternity hospitals or orphanages in the State.

Preschool clinics.—During 1929, 40 preschool conferences were held at which 800 children were examined.

School hygiene.—The medical examination of school children is an activity of the State board of education.

Public-health nursing.—Public-health nursing activities are directed by a supervisory nurse.

Eligibility requirements.—A public-health nurse must be a registered nurse with previous training in public-health work.

TABLE 247.—Total appropriations for State department of health, by years¹

WYOMING

Year	Total appropriation	Source of funds and amounts		Year	Total appropriation	Source of funds and amounts	
		State legislature	U. S. Children's Bureau			State legislature	U. S. Children's Bureau
1923.....	\$23, 250	\$12, 250	\$11, 000	1927.....	\$20, 500	\$13, 000	\$7, 500
1924.....	23, 250	12, 250	11, 000	1928.....	20, 500	13, 000	7, 500
1925.....	17, 200	10, 600	6, 600	1929.....	18, 300	14, 800	3, 500
1926.....	17, 200	10, 600	6, 600	1930.....	15, 000	15, 000	-----

¹ Figures for the tabulation of budgets by divisions by years were not available.

IV. Summaries—Territorial Health Services by Territories

HAWAII

BOARD OF HEALTH

Organization.—The board of health of the Territory of Hawaii is composed of seven members, six of whom are appointed by the governor and with the advice and consent of the senate. The attorney general of the Territory is a member ex officio. All appointed members must be citizens of the Territory; four must be laymen, and two must be physicians.

Term of office and compensation.—The term of office is four years. All members do not go out of office at the same time. When a term expires, the governor either reappoints the member or makes a new appointment. The members of the board, with the exception of the president and executive officer, serve without pay.

Hawaii - Organization of the Territorial Department of Health in 1930

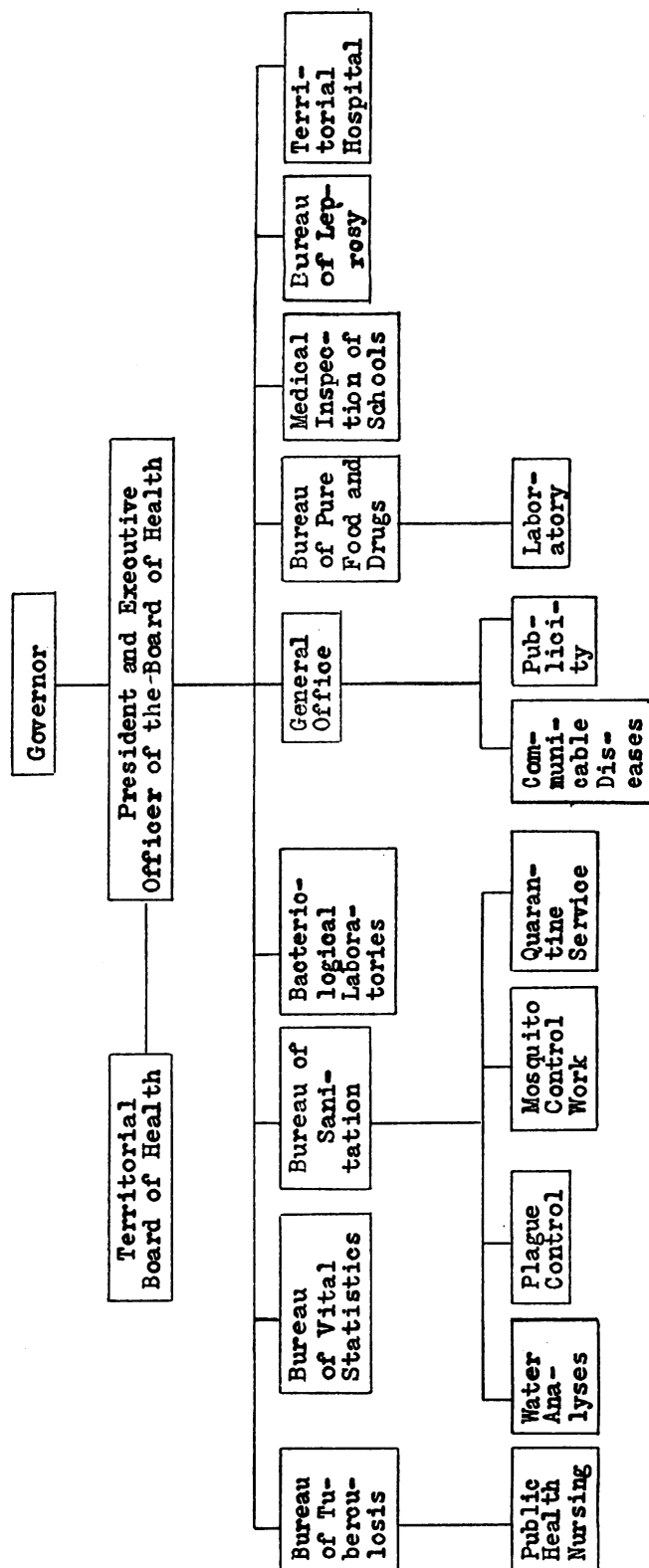


FIGURE 69

Meetings.—Meetings are held on the third Wednesday in the month and on call of the president and executive officer when necessary.

EXECUTIVE OFFICER

Legal qualifications.—With the advice and consent of the senate, the governor designates one member of the board as the president and executive officer. There are no legal qualifications for this office.

Term of office and compensation.—The president and executive officer serves for four years. He receives a yearly salary of \$7,200 and his necessary traveling expenses. For travel outside of the Territory the consent of the governor is required.

Powers and duties.—The president and executive officer presides at the board meetings and carries on the executive work of the board with all necessary powers and duties.

POWERS OF THE DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The department of health has control of sanitation in general, water pollution, sewage disposal, milk supplies, food adulteration, nuisances, communicable diseases, quarantine, and the enforcement of the medical-practice law. It is the duty of all county and city health authorities to enforce the rules and regulations of the board of health.

APPROPRIATIONS

Appropriations are made to the department of health by the legislature for a biennial period and are apportioned by budgets to the different bureaus.

TABLE 248.—Bureaus of the Territorial department of health in 1930 ¹

HAWAII

Bureaus	Total budgets by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
General office.....	\$50, 115	² 16	\$7, 200	\$34, 190	\$41, 390
Bureau of tuberculosis.....	292, 672	² 32	6, 000	55, 098	61, 098
Bureau of vital statistics.....	21, 545	9	3, 300	12, 045	15, 345
Bacteriological laboratories.....	8, 070	² 3	3, 000	3, 320	6, 320
Bureau of sanitation.....	108, 233	² 47	4, 800	92, 900	97, 700
Quarantine service.....	40, 232	² 11	(³)	15, 358	15, 358
Plague campaign.....	28, 490	² 16	(³)	19, 725	19, 725
Bureau of maternity and infancy.....	18, 452	² 8	3, 000	12, 000	15, 000
Bureau of pure food and drugs.....	12, 825	4	4, 800	6, 000	10, 800
Bureau of leprosy.....	423, 835	217	(⁴)	130, 555	130, 555
Territorial hospital for the insane.....	303, 917	85	4, 800	135, 020	139, 820
Government physicians.....	39, 900	² 29	(⁵)	39, 900	39, 900
Board of examiners.....	475	1	(⁵)	250	250

¹ Total appropriation, \$1,350,761; total appropriation exclusive of tuberculosis sanatoria funds, \$1,058,089; Territorial legislative appropriation, \$1,348,761.

² Officials included whose time is devoted to more than 1 activity.

³ Director of bureau of sanitation is in charge.

⁴ The assistant administrator is in charge of the bureau.

⁵ No director.

GENERAL OFFICE

Personnel.—The personnel of the general office consisted in 1930 of the president and executive officer of the board, a secretary, a medical officer in charge of communicable diseases and leprosy, a chief clerk and budget officer, three stenographers, one bookkeeper, and seven clerks.

Civil service.—The employees of the department of health are civil service appointees. A change in administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed by the auditor upon vouchers properly prepared and certified by the president and executive officer.

Purchases.—Supplies are purchased upon tender and contract.

Supervision of local health organizations.—Each county and city has the power to make and enforce, within the limits of its boundaries, all necessary ordinances pertaining to health matters; to appoint county physicians and sanitary inspectors; and to fix a penalty for the violation of any ordinance.

Communicable diseases.—The control of communicable diseases is under the general medical officer.

Reporting of diseases.—Cases of communicable diseases are reported immediately to the board of health by physicians, householders, keepers of boarding houses, masters of vessels, and police officers.

Quarantine.—Quarantine measures are under the control of the chief sanitary inspectors of each county. (See bureau of sanitation.)

Smallpox vaccination.—Smallpox vaccination is compulsory for school children throughout the islands.

Emergency fund.—No emergency fund is provided for use in case of a severe or extensive outbreak. However, the governor has a contingent fund which may be used in time of an outbreak of an epidemic disease.

Publicity.—Publicity activities are directed by the several bureau chiefs.

Press service.—The newspapers offer voluntary services to the health department.

Bulletins.—A weekly report on communicable diseases, and a monthly report of morbidity and mortality statistics, with comments, are issued.

BUREAU OF TUBERCULOSIS

Personnel.—The bureau of tuberculosis is conducted by a physician, who was assisted in 1930 by two stenographers of the registration bureau, two nurses, and a clerk of the chest clinic.

Activities.—Efforts have been made by the bureau of tuberculosis to obtain accurate records of all cases of tuberculosis; to hospitalize all cases possible; to supervise directly through the nurses or indirectly through the family physicians all cases not in hospitals; to examine suspicious cases and as many contacts of active cases as possible; to visit the homes of tuberculosis patients, educate them and their families in means of prevention, hygiene of the home, and care of the patient; to obtain the cooperation of other organizations; to carry on a program of education through the medical fraternity, schools, and various health organizations.

Clinics.—The bureau of tuberculosis conducts clinics in the city of Honolulu and in the rural sections of the island of Oahu. Other clinics are held in Leahi Home and the Japanese hospital in Honolulu, under the supervision of the tuberculosis bureau. On the islands of Hawaii, Maui, and Kauai, clinics are conducted at regular intervals by local sanatorium or government physicians. Cases not in hospitals are supervised by periodic visits of the public-health nurses and examinations at the clinics. Follow-up visits are made to all cases discharged from hospitals.

Sanatoria.—Four hospitals are devoted entirely to the care of tuberculous patients. One with a capacity of 100 patients, located at Hilo, is controlled exclusively by the board of health. Three others with a total capacity of 736 beds are financed partly by the Territory and counties.

Nursing service.—The division of public-health nursing is included with the tuberculosis bureau under the departments of general medical assistance, nursing, maternal and infant welfare. The Palama settlement nurses are cooperating with the public-health nurses in a program of generalized public-health nursing for the city of Honolulu. There is a nursing supervisor in Honolulu for each of the other large islands.

Eligibility requirements.—A public-health nurse must be a graduate and a registered nurse in the Territory of Hawaii, and must have had, or must signify her intention of taking within a definite period, a public-health nursing course.

Number of nurses.—Thirty-two public-health nurses were employed by the Territorial board of health in 1929. They were assisted by 19 Palama settlement nurses. Two public-health nurses employed by other agencies are under the direct supervision of the board of health.

Duties of nurses.—The work of the nurses in all districts is that of generalized public-health nursing including tuberculosis, school hygiene, prenatal and infant welfare work. The tuberculosis work consists of the investigation of new cases, follow-up of contacts and suspect cases, holding of clinics with government physicians, endeavoring to place as many cases as possible in hospitals, and following up

in the homes those who can not enter sanatoria or have been discharged from the hospitals.

Venereal diseases.—The venereal-disease clinic, formerly operated by the Territorial board of health, was discontinued in June, 1929, as the legislature did not appropriate funds for this purpose. This work has been assumed by Palama settlement, Honolulu.

BUREAU OF VITAL STATISTICS

Personnel.—The personnel of the bureau of vital statistics consisted in 1930 of the registrar general, the deputy registrar general, the registrar for Honolulu, a stenographer, 6 clerks, and 36 local registrars.

Registration districts.—The islands are divided into judicial districts which serve as the primary registration districts.

Local registrars.—The local registrars of the districts are chosen by the president and executive officer of the board of health. They do not receive any specific salary, but are paid for their services as government physicians of their districts, for the treatment of indigent sick, for examinations and vaccinations of children of the public schools, and for the treatment of patients released from the leprosy hospital.

Registration area.—Hawaii has been admitted to the United States registration area for deaths but has not yet met the minimum requirements necessary for admission to the registration area for births.

Reporting of deaths.—About 95 per cent of the deaths occurring in the Territory are reported. Deaths are reported immediately to the local registrars and monthly to the registrar general.

Legal standards.—The standard certificate and the international list of the causes of death are used, but the model law has not been adopted.

Reporting of births.—It is estimated that over 90 per cent of the births occurring in the Territory are reported. A birth count for the purpose of entering the registration area is to be made in May, 1930. Births are reported within 30 days to the local registrars and monthly to the registrar general.

Stillbirths.—A birth and death certificate is required in the case of a stillbirth.

Blanks and postage.—The board of health supplies the postage and the blanks for recording returns.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is referred to the coroner of the district in which the death occurred.

Burial permits.—Burial permits are necessary and are issued by the registrar of the district.

Licensing.—Physicians are licensed by the president and executive officer of the board of health upon the recommendation of the Board of Medical Examiners of the Territory of Hawaii. Midwives and undertakers are not licensed.

BACTERIOLOGICAL LABORATORIES

Personnel.—The director of the bacteriological laboratories, a part-time official, is a bacteriologist and pathologist. In 1930 he had two assistants.

Central laboratories.—The diagnostic work for the board of health is carried on in a private laboratory in Honolulu.

Branch laboratories.—Branch laboratories, financed by Territorial funds, are located in Hilo, Hawaii; Puunene, Maui; and Koloa, Kauai.

Private laboratories.—The board of health has no supervision over the private laboratories in the Territory.

Special laboratories.—Two special laboratories, one for food and drugs and one for water, are both located in Honolulu.

Activities.—For the fiscal year ending June 30, 1929, 4,943 examinations were made by the bacteriologist; 453 water analyses were made by the bureau of sanitation; and 4,676 examinations of samples were made by the food and drugs bureau. In Hilo, for the same period, a total of 2,473 examinations was made, including bacteriological, serological, and clinical examinations, and milk analyses.

Fees.—No charge is made for any service performed by the laboratory.

Biological products.—Biological products are purchased and issued to physicians and hospitals for free distribution.

Research.—No special investigations were carried on by the laboratories during 1929.

BUREAU OF SANITATION

Organization.—The bureaus of sanitary engineering, sanitation, and mosquito control were combined at the 1929 session of the legislature into the bureau of sanitation.

Personnel.—The personnel of the bureau of sanitation consisted in 1930 of a director who is a sanitary engineer, an assistant, a health officer, 4 division supervisors, 4 district inspectors, 23 sanitary inspectors, a senior clerk, a stenographer and 5 clerks.

Sanitary inspection.—A health officer of the Territorial board of health, with a division supervisor as assistant, is in charge of sanitary inspection on the island of Hawaii. A division supervisor of the board of health is in charge of each of the islands of Kauai, Maui, and Oahu. On the island of Molokai a district sanitary inspector is in charge.

Activities.—The combination of the activities of the bureaus of sanitary engineering and sanitation into one bureau has increased the efficiency and has given the director of sanitation a larger personnel with which to work. The activities of the division supervisors include sanitation work, quarantine of communicable diseases, control of persons reported with leprosy, pure-food work and office work, including the preparation and forwarding of all vouchers to headquarters in Honolulu.

Quarantine service.—Quarantine measures are under the control of the division supervisors. In 1930 the staff consisted of two quarantine officers and six helpers.

Mosquito control.—The bureau of sanitation carries on mosquito-control measures. In 1930 an oiler and two assistants were employed for this work.

Plague.—The bureau of sanitation supervises plague-control measures. In 1930 the personnel carrying on this work consisted of a district inspector, a bacteriologist, three laboratory attendants, a trapper in charge, and 10 assistant trappers.

Public water supplies and sewerage systems.—Investigation and supervision of public water supplies, sewerage systems, and sewage-disposal methods are receiving constantly increased attention.

Analysis and inspection.—Public water supplies are analyzed regularly and water-purification plants are inspected regularly.

Camps, roadside water supplies, and swimming pools.—No legislation has been passed concerning tourist camps, summer camps, roadside water supplies, or swimming pools.

BUREAU OF MATERNITY AND INFANCY

History.—The passage by Congress of Hawaii's bill of rights in April, 1925, was successfully accomplished, and the Territorial legislature accepted the terms of the Sheppard-Towner Act. Funds were made available for the promotion of maternity and infancy welfare work, and the bureau of maternity and infancy was created. The Sheppard-Towner Act expired in 1929, but this work was continued through an appropriation by the Territorial legislature of the money formerly received from the Federal Government.

Personnel.—In 1930 the personnel consisted of the director, who also acts as supervisor of all public-health nurses in the department; 3 field supervisors, 1 of whom was paid from the tuberculosis appropriation; 33 nurses; 1 stenographer; and 3 clerks.

Prenatal visits.—During 1929, 749 prenatal visits were made to 256 cases. No clinics have been established.

Midwives.—The large oriental population employs midwives, but no instruction is given to these women. Some have been taught in Japan, others are very poorly trained. In rural districts they cooperate with plantation physicians.

Ophthalmia neonatorum.—The instillation of prophylactic drops is required in the eyes of the new born.

Health centers.—Fifty-three health centers have been established outside of Honolulu. Of these, 32 are conducted by the bureau of maternity and infancy and 21 by plantations. With the help and cooperation of this bureau, 22,308 infants and preschool children were examined in 1929. The records show 11,498 births in the Territory of Hawaii for the fiscal year ending June 30, 1929. During this same period the health centers had under supervision 2,840 infants under 1 year of age. Inasmuch as more than a third of the babies born in the Territory are born in Honolulu, these figures show that in the rural districts where the bureau of maternity and infancy is working, more than a third of the babies born have been examined and are under supervision.

Welfare work.—The welfare work carried on by the public-health nurses is an important phase of the nursing service. The work consists of the investigation of new cases, the follow-up of both old and new cases, and the securing of relief from the mothers' pension appropriation through welfare boards.

Public-health nursing.—See bureau of tuberculosis.

MEDICAL INSPECTION OF SCHOOLS

School hygiene.—School children in Honolulu are examined by six physicians employed on a part-time basis for this purpose; outside of Honolulu this work is done by 30 district physicians. Parents are notified of defects found.

School nursing.—The public-health nurse of the district assists the district physician in the examination of school children and in vaccinations and immunizations, does the follow-up work in connection with the defects found in the children, and gives treatments in the schools under the direction of the district physician.

BUREAU OF PURE FOOD AND DRUGS

Personnel.—The personnel of the division of pure food and drugs consisted in 1930 of the food commissioner, a deputy food commissioner, a clerk, and a laboratory assistant.

Activities.—The enforcement of the laws pertaining to pure foods and drugs is intrusted to the Territorial board of health. The food commissioner is a deputy of the pure food bureau of the department of agriculture and assists United States Government officials in enforcing all pure food and drugs laws.

Food handlers.—The medical examination of food handlers is not required.

Food inspection.—Inspection of foods except meats are made by the food commissioner and his assistants; meat inspections are made by city and county officials.

Milk laws.—The milk laws are enforced by the bureau of food and drugs. The standard methods of the American Public Health Association are used in the chemical and bacteriological examinations of milk. Dairies are licensed and permits from the board of health are required. The tuberculin testing of cattle is a function of the board of agriculture and forestry.

BUREAU OF LEPROSY

Personnel.—In 1930 the personnel of the bureau of leprosy consisted of a director who is a physician; 4 physicians who are commissioned officers of the United States Public Health Service, 2 on a full-time and 2 on a part-time basis; an ophthalmologist; a dentist; a superintendent; 3 matrons; 4 practical nurses; a part-time chemist; a part-time assistant chemist; 2 clerks; a parole officer; 30 hospital attendants; and 169 helpers.

Homes.—Nonleprous children born to lepers are cared for in two special homes in Honolulu financed and managed by the board of health.

TERRITORIAL HOSPITAL FOR THE INSANE

Personnel.—The staff of the territorial hospital for the insane consisted in 1930 of a superintendent who is a physician, 2 assistant physicians, a dentist, 2 hydrotherapists, a supervising nurse, 5 nurses, 5 watch captains, an engineer, 3 mechanics, 2 foremen, 39 attendants, 5 cooks, 3 waiters, and 3 laundrymen.

Activities.—The Territorial hospital for the insane is supervised and maintained by the Territorial board of health.

TABLE 249.—Total budget, Territorial legislative budget for health work, and budgets by bureaus, by years

HAWAII								
Bureau	1915	1916	1917	1918	1919	1920	1921	1922
Total budget for health work.....	\$487,570	\$449,450	\$449,450	\$551,230	\$551,230	\$682,005	\$682,005	\$870,803
Total budget exclusive of tuberculosis sanatoria funds.....	446,970	389,450	389,450	468,730	468,730	562,905	562,905	717,103
Total Territorial legislative budget.....	487,570	449,450	449,450	551,230	551,230	682,005	682,005	870,803
General office.....	17,650	16,900	16,900	21,400	21,400	29,600	29,600	33,950
Bureau of sanitary inspection.....	40,150	37,630	37,630	41,880	41,880	52,680	52,680	73,620
Bureau of pure food and drugs.....	11,220	11,220	11,220	11,220	8,400	8,400	8,400	11,250
Bureau of tuberculosis.....	40,600	60,000	60,000	82,500	82,500	119,100	119,100	153,700
Bacteriological laboratories.....	8,800	8,000	8,000	2,820	2,820	6,420	6,420	9,000
Bureau of sanitation.....	3,000	3,000	3,000	3,000	3,000	3,000	3,000	7,800
Bureau of leprosy.....	244,738	183,910	183,910	229,840	229,840	280,205	280,205	316,200
Plague campaign.....	12,000	10,000	10,000	10,000	10,000	12,000	12,000	13,000
Mosquito campaign.....	15,000	12,500	12,500	13,750	13,750	4,800	4,800	2,400
Quarantine service.....	24,000	27,500	27,500	29,500	29,500	29,900	29,800	35,850
Territorial hospital for the insane.....	58,650	56,450	56,450	81,040	81,040	83,180	83,180	128,558
Government physicians.....	10,762	11,760	19,840	14,780	18,600	24,220	24,320	28,320
Medical inspection of schools.....		2,500	2,500	9,500	9,500	28,500	28,500	27,000
Bureau of vital statistics.....								8,840
Venereal-disease clinic.....								7,500
Miscellaneous.....								13,815
Bureau of maternity and child hygiene.....								13,815
Bureau of sanitation.....								

TABLE 249.—*Total budget, Territorial legislative budget for health work, and budgets by bureaus, by years—Continued*

HAWAII

Bureau	1923	1924	1925	1926	1927	1928	1929	1930
Total budget for health work.....	\$870,803	\$961,888	\$961,888	\$1,174,426	\$1,174,426	\$1,259,708	\$1,259,708	\$1,350,761
Total budget exclusive of tuberculosis sanatoria funds.....	717,103	747,150	747,150	898,711	898,711	971,593	971,593	1,058,089
Total Territorial legislative budget.....	870,803	961,888	961,888	1,162,700	1,162,700	1,247,982	1,247,982	1,348,761
General office.....	33,950	30,400	30,400	40,150	40,150	39,432	39,432	50,115
Bureau of sanitary inspection.....	73,620	74,460	74,460	86,495	86,495	92,562	92,562	(¹)
Bureau of pure food and drugs.....	11,250	11,250	11,250	13,200	13,200	12,562	12,562	12,825
Bureau of tuberculosis.....	153,700	214,738	214,738	275,715	275,715	288,115	288,115	292,672
Bacteriological laboratories.....	9,000	4,500	4,500	5,500	5,500	5,225	5,225	8,070
Bureau of sanitation.....	7,800	7,800	7,800	8,000	8,000	9,990	9,990	108,233
Bureau of leprosy.....	316,200	327,692	327,692	397,060	397,060	408,860	408,860	423,835
Plague campaign.....	13,000	30,000	30,000	32,845	32,845	25,770	25,770	28,490
Mosquito campaign.....	2,400	2,700	2,700	3,750	3,750	3,250	3,250	(¹)
Quarantine service.....	35,850	26,700	26,700	43,250	43,250	38,727	38,727	40,232
Territorial hospital for the insane.....	128,558	154,058	154,058	188,487	188,487	247,564	247,564	303,917
Government physicians.....	28,320	29,400	29,400	37,080	37,080	38,280	38,280	39,900
Medical inspection of schools.....	27,000	2,500	2,500					² 2,000
Bureau of vital statistics.....	8,840	13,950	13,950	24,725	24,725	22,100	22,100	21,545
Venereal-disease clinic.....	7,500	7,500	7,500	8,442	8,443	8,342	8,343	(³)
Miscellaneous.....	13,815	24,240	24,240		500	475	475	475
Bureau of maternity and child hygiene.....				⁴ 18,452	⁴ 18,452	⁴ 18,452	⁴ 18,452	18,452
Bureau of sanitation.....								

¹ Included under bureau of sanitation.² No appropriation made by the legislature. This amount was allowed from the governor's contingent fund.³ This activity now under the Palama settlement, Honolulu.⁴ U. S. Children's Bureau funds not included. (See Table 250.)TABLE 250.—*Total appropriations for Territorial department of health, by years*

HAWAII

Year	Total appropriation	Appropriation exclusive of tuberculosis sanatoria funds	Territorial legislature	Governor's contingent fund	U. S. Children's Bureau
1915.....	\$487,570	\$446,970	\$487,570		
1916.....	449,450	389,450	449,450		
1917.....	449,450	389,450	449,450		
1918.....	551,230	468,730	551,230		
1919.....	551,230	468,730	551,230		
1920.....	682,005	562,905	682,005		
1921.....	682,005	562,905	682,005		
1922.....	870,803	717,103	870,803		
1923.....	870,803	717,103	870,803		
1924.....	961,888	747,150	961,888		
1925.....	961,888	747,150	961,888		
1926.....	1,174,426	898,711	1,162,700		\$11,726
1927.....	1,174,426	898,711	1,162,700		11,726
1928.....	1,259,708	971,593	1,247,982		11,726
1929.....	1,259,708	971,593	1,247,982		11,726
1930.....	1,350,761	1,058,089	1,348,761	\$2,000	

Porto Rico - Organization of the Insular Department of Health in 1930

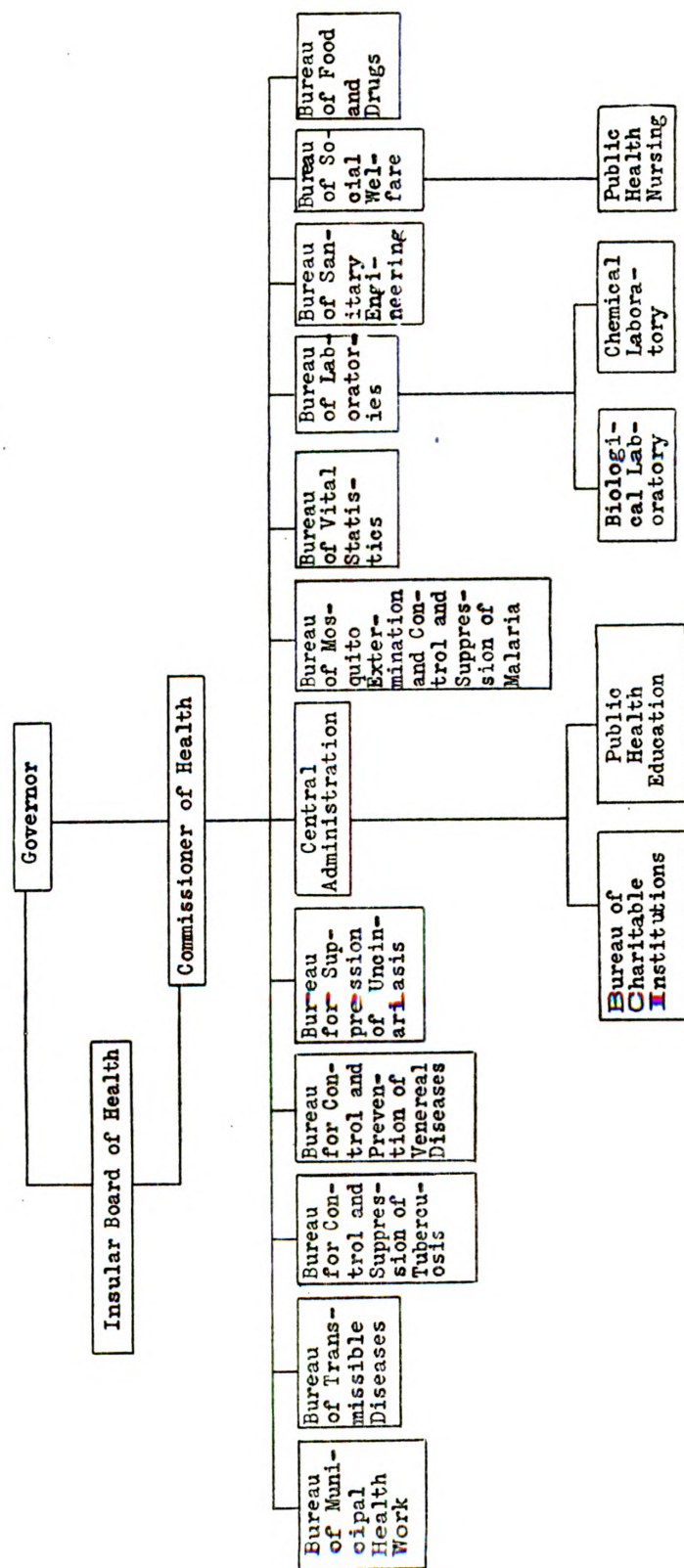


FIGURE 70

PORTO RICO

INSULAR BOARD OF HEALTH

Organization.—The insular board of health of the island of Porto Rico is composed of seven members appointed by the governor with the advice and consent of the senate of Porto Rico. One of the members must be an engineer, one a lawyer, one an expert chemist or pharmacist, and four physicians. All must be men of good professional standing, licensed to practice their professions in the island of Porto Rico, and having had at least five years' practice in the island.

Term of office and compensation.—The members serve for an unlimited period. A per diem compensation of \$5 is paid while in attendance at meetings. Traveling expenses are not paid.

Meetings.—Meetings of the board are held each month and special meetings are held by order of the president whenever necessary.

EXECUTIVE OFFICER

Legal qualifications.—The commissioner of health is appointed by the governor, with the advice and consent of the senate, from outside the insular board of health. He must be a physician duly authorized to practice in the island, and with at least five years' professional experience.

Term of office and salary.—The commissioner of health serves for a term of four years. He receives a yearly salary of \$6,000, an allowance of \$5 per diem for traveling expenses, and the use of a car for official duties.

POWERS OF THE INSULAR BOARD OF HEALTH

Judicial, legislative, and executive powers.—It is the duty of the insular board of health to prescribe the sanitary regulations and ordinances applicable in all the municipalities in Porto Rico with a view to preventing and suppressing contagious and epidemic diseases.

Duties and powers of the commissioner.—The commissioner of health is the executive officer and has charge of all matters relating to public health sanitation and charities, except such as relate to the conduct of maritime quarantine. Public health work in Porto Rico is centralized.

APPROPRIATIONS

The legislature of Porto Rico makes an annual appropriation which is allotted to the various bureaus of the department of health.

TABLE 251.—Bureaus of the insular department of health in 1930 ¹

PORTO RICO

Bureau	Total budget by bureaus	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$95,421	25	\$6,000	\$22,230	\$28,230
Bureau of municipal health work.....	83,500	51	3,300	80,200	83,500
Full-time municipalities.....	167,000	112	(²)	142,643	142,643
Bureau of transmissible diseases.....	19,000	10	4,000	15,000	19,000
Bureau of tuberculosis control.....	60,000	29	(³)	46,038	46,038
Bureau of venereal diseases.....	12,000	6	3,000	7,380	10,380
Bureau for suppression of uncinariasis.....	150,000	83	4,000	109,435	113,435
Bureau of mosquito extermination.....	50,000	18	4,000	20,728	24,728
Bureau of vital statistics.....	7,200	5	2,400	4,800	7,200
Bureau of laboratories.....	41,398	30	⁴ 3,300	29,580	32,880
Bureau of sanitary engineering.....	11,165	8	3,500	7,665	11,165
Bureau of social welfare.....	50,000	28	4,000	22,790	26,790
Bureau of food and drugs.....	17,000	8	3,000	14,000	17,000

¹ Total appropriation, \$1,390,535; total appropriation exclusive of tuberculosis sanatoria funds, \$1,178,307; insular legislative appropriation, \$1,222,575.

² Salary of health officers, \$2,000 to \$3,000.

³ The director of the bureau of social welfare is in charge.

⁴ This represents the salary of the director of the biological laboratory. The salary of the director of the chemical laboratory is \$3,018.

CENTRAL ADMINISTRATION

Personnel.—In 1930 the personnel of the central office consisted of the commissioner of health, the assistant commissioner of health, a secretary, an accountant, a stenographer, 11 clerks, and 9 other personnel.

Civil service.—Employees of the insular department of health are civil service appointees. A change in administration does not affect the tenure of personnel in the department of health.

Disbursement of funds.—Vouchers are checked by the auditor and are paid by the treasurer of Porto Rico.

Purchases.—Supplies are purchased through the bureau of supplies.

Publicity.—The publicity of the insular department of health is directed by a physician.

Press service.—The department uses the press service of the bureau of printing and transportation of the insular government.

Bulletins.—The Porto Rico Journal of Public Health and Tropical Medicine, issued quarterly, are the official bulletins of the department of health.

Lectures.—Illustrated conferences are held periodically in the different towns of the island. A summer course in social work was given at the University of Porto Rico during 1929.

Equipment.—The insular health department owns a stereopticon, about 1,000 slides, 21 motion-picture films, and 2 portable machines.

BUREAU OF MUNICIPAL HEALTH WORK

Personnel.—In 1930 the personnel of the bureau of municipal health work consisted of a medical director, 7 district physicians, a medical director for municipal health units, 6 physicians in charge of municipal

health units, 15 clerks, 4 building and plumbing inspectors, a veterinary inspector, and 16 other personnel.

Municipal health work.—A health officer is appointed by the commissioner of health for each municipality of the island. Health officers hold office during good behavior and are subject to removal by the commissioner of health. During 1929, 85 full-time health inspectors were employed. Their salaries ranged from \$850 to \$2,400 a year.

BUREAU OF TRANSMISSIBLE DISEASES

Personnel.—The staff of the bureau of transmissible diseases consisted in 1930 of a director, an associate director, an epidemiologist, 4 inspectors, 4 clerks, a pharmacist, and a messenger.

Legislative and executive authority.—Legislative authority concerning communicable diseases is vested in the insular board of health. The commissioner of health is the executive authority in all matters concerning public health. Powers are granted by the commissioner to the chief of the bureau to act as his delegate in the control of epidemics and in the isolation of patients with communicable diseases.

Reporting of diseases.—All practicing physicians and health officers report cases of communicable diseases daily to the insular department of health.

Quarantine measures.—Quarantine measures are under the control of the chief of the bureau of transmissible diseases.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—An emergency fund is provided which may be used with the approval of the governor in case of an epidemic.

BUREAU FOR CONTROL AND SUPPRESSION OF TUBERCULOSIS

Personnel.—The staff of the bureau of tuberculosis consisted in 1930 of a chief, who is also the director of the bureau of social welfare, 5 part-time physicians, 21 nurses, a Röntgenologist, and a technician.

Sanatoria.—Two sanatoria with a capacity of 255 beds are under the supervision of the department of health. A medical director is in charge of each sanatorium.

Dispensaries.—There are 13 tuberculosis dispensaries in addition to those maintained by the six municipal-health units. During 1929 3,805 patients attended the tuberculosis clinics under this bureau while 2,865 patients attended the clinics held by the municipal-health units.

BUREAU OF CONTROL AND PREVENTION OF VENEREAL DISEASES

Personnel.—In 1930 the staff of the bureau of venereal diseases consisted of a director, two specialists, two nurses, and a clerk.

Clinics.—Three clinics with a capacity of 75 patients a day were conducted in 1929 under the supervision of the department of health.

Treatment.—During 1929, 2,490 patients were treated in the anti-syphilitic clinics and 380 in clinics for other venereal diseases.

BUREAU FOR SUPPRESSION OF UNCINARIASIS

Personnel.—In 1930 the personnel of the bureau for the suppression of uncinariasis consisted of a medical director, a secretary, 2 physicians, 72 inspectors, a clerk, and 6 other personnel.

BUREAU OF MOSQUITO EXTERMINATION AND CONTROL AND SUPPRESSION OF MALARIA

Personnel.—The staff of the bureau of mosquito extermination consisted in 1930 of a medical director, a sanitary engineer, a drainage engineer, an entomologist, 2 clerks, 4 laboratory technicians, and 8 inspectors.

BUREAU OF VITAL STATISTICS

Personnel.—The insular registrar of vital statistics in 1930 was assisted by four clerks.

Registration districts.—The municipality is the primary registration district in Porto Rico.

Local registrars.—The local registrar of each municipality is appointed by the mayor and is paid a salary by the municipal government.

Registration area.—Porto Rico has not been admitted to the United States registration areas for births and deaths.

Reporting of deaths.—In 1929, 100 per cent of the deaths occurring in Porto Rico were reported. The law places the responsibility of reporting deaths upon the relatives of the deceased but no burial permit can be issued unless a medical certificate is presented. Deaths must be reported to the local registrar within 24 hours and to the department of health once a week.

Legal standards.—The model law and standard certificate are not used in Porto Rico. The international list of the causes of death has been adopted.

Reporting of births.—In 1929, 95 per cent of the births occurring in Porto Rico were reported.

Stillbirths.—Stillbirths are recorded separately, not as births and deaths.

Blanks and postage.—The health department supplies the blanks for recording the returns and the municipal government provides the postage.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is investigated by judicial authority with the as

sistance of a physician, if required. The judge or prosecuting attorney, after investigation, orders the issuance of the burial permit.

Burial permits.—The local registrars issue burial permits.

Licensing.—Physicians and midwives are licensed by the board of medical examiners. Undertakers are not licensed.

BUREAU OF LABORATORIES

Organization.—The department of health maintains a biological laboratory and a chemical laboratory which, although cooperating with one another, are independently operated.

Biological laboratory.—The biological laboratory consists of a central laboratory at San Juan in the same building with the executive offices of the department of health, and a branch laboratory in Ponce. The laboratories do the biological work for the entire island as no city laboratories are maintained.

Personnel of the biological laboratories.—The staff of these laboratories consisted in 1930 of a director, an assistant director, two bacteriologists, an assistant bacteriologist, a pathologist, seven technicians, six office personnel, and three laborers.

Special laboratory.—A special laboratory for the prevention and control of bubonic plague is maintained at San Juan. The work of this laboratory consists in the trapping and examination of rodents in different parts of the island. Several rat-flea surveys have been made and the results published in the Porto Rico Review of Public Health and Tropical Medicine.

Activities of the biological laboratory.—The biological laboratory does all the public-health work as well as all the work for such government institutions as the penitentiary, the hospital for the insane, the leper colony, and others. A total of 65,798 examinations was made in both biological laboratories during 1928–29 with a monthly average of 5,483 examinations. The San Juan laboratory performed 54,080 examinations or 82.2 per cent of the work, and the Ponce branch 11,718 or 17.7 per cent. The number of examinations performed was 44.6 per 1,000 living population. A total of 245 physicians and 45 institutions (including dispensaries) sent specimens to the biological laboratory at San Juan for examination. The greater number of examinations made were Wassermann blood tests, examinations of diphtheria cultures, of feces for intestinal parasites, and of malaria blood smears.

Fees.—No charge is made for any examination performed in the laboratory.

Biological products.—Biological products are purchased and distributed by the bureau of transmissible diseases. Measles convalescent and immune sera was prepared and distributed by the laboratory during an investigation as to its relative value.

Research.—Special investigations of public health problems are carried on. Investigations have been made during the year on the blood chemistry in leprosy, and on the prophylactic use of immune measles serum. The epidemiology of diphtheria is being studied. All investigations are carried on with the cooperation of other bureaus of the department of health.

Chemical laboratory.—The chemical laboratory makes examinations of cow's milk, of foodstuffs, of viscera in suspected cases of poisoning and water analyses. A total of 4,673 specimens was examined in 1929, 3,763 of which were specimens of cow's milk.

Personnel of chemical laboratory.—The personnel of the chemical laboratory consisted in 1930 of a director, an assistant director, three chemists, two office assistants, and two laborers.

BUREAU OF SANITARY ENGINEERING

Personnel.—The staff of the bureau of sanitary engineering consisted in 1930 of a chief sanitary engineer, two assistant engineers, an engineer in charge of water and sewerage purification, a draftsman, two clerks, and a janitor.

Public water supplies.—The insular department of health has passed rules and regulations concerning the construction, reconstruction, modification, or extension of aqueducts in the island of Porto Rico.

Analysis.—Public water supplies are analyzed when necessary. Some supplies are known to be contaminated as no method of purification is used.

Inspection.—Some water purification plants are inspected twice a week or oftener; others are inspected twice a month.

Sewerage systems.—The bureau of sanitary engineering approves the plans of all sewerage systems and makes necessary recommendations with regard to grade, size, purification required, location of purification plants, place of discharge, etc.

Camps, roadside water supplies, and swimming pools.—No legislation has been passed concerning camps, roadside water supplies, and swimming pools.

BUREAU OF SOCIAL WELFARE

Personnel.—The director of the bureau of social welfare in 1930 was assisted by the superintendent of social work, 4 social workers, 5 physicians who served part time, 17 nurses, and a secretary.

Prenatal clinics.—A total of 409 prenatal clinics was held in 1929 with an attendance of 2,854 patients. The municipal health units held 142 prenatal clinics with an attendance of 1,334.

Lying-in hospital.—The maternity hospital in San Juan with a capacity of 42 beds is licensed by the health department. All general hospitals in the island admit obstetrical cases.

Midwifery.—Midwives are instructed through the prenatal dispensaries.

Ophthalmia neonatorum.—Cases of infantile tetanus and ophthalmia neonatorum must be reported. The municipal health officer makes a personal visit; if the patient is indigent the municipality furnishes the treatments.

Municipal dispensaries.—Thirteen general dispensaries are maintained by the health department and every town of the island maintains a municipal dispensary.

Baby dispensaries.—In 1929, 2,533 new patients were registered in the baby dispensaries and the total attendance was 8,828. The municipal health units held 140 infant hygiene clinics with an attendance of 733 patients.

Public health nursing.—A law passed in 1923 assigned funds for the employment of visiting nurses. A general supervisor of public health nursing with a central office in San Juan makes regular visits to the dispensaries and supervises the work of all the public-health nurses.

Eligibility requirements.—Public-health nurses must pass a civil service examination. In addition an insular public-health nurse must be over 18 years of age, of good health and good moral conduct, and if employed since 1925 must have pursued 10th-grade studies. A local public-health nurse must be a graduate of a school of nurses duly authorized by the commissioner of health.

Activities.—Visiting nurses are assigned to tuberculosis, infant welfare, or venereal-disease dispensaries, but the work of each nurse is general in character.

Number of nurses.—During 1929, there were 21 tuberculosis nurses, 17 infant-welfare nurses, and 2 venereal-disease nurses. A head nurse supervises each dispensary district and a general supervisor is employed for the whole island.

BUREAU OF FOOD AND DRUGS

Personnel.—In 1930 the staff of the bureau of food and drugs included a chief and seven inspectors.

Activities.—The enforcement of laws pertaining to the food and drugs act, cold storage, etc., are intrusted to the insular department of health.

Medical examinations.—The medical examination of food handlers is required by law and is enforced by the district medical inspectors.

Permits.—Permits to run places where food is handled are necessary and are issued by the local sanitary inspectors.

Inspections.—Slaughterhouses are inspected.

Shellfish.—The prevention of the pollution of shellfish is under the supervision of the health department.

Milk laws.—Milk laws are enforced by the health department and dairies are licensed by this bureau of the health department. The chemical analysis of milk and the examination of foods is made by the chemical laboratory. The testing of cattle is a function of the department of agriculture and labor.

TABLE 252.—*Total budget, legislative budget for health work, and budget by bureaus, by years*
PORTO RICO

Bureau	1915	1916	1917	1918	1919	1920
Total budget.....	\$270,329	\$171,803	\$186,192	\$346,139	\$549,272	\$706,816
Legislative budget ¹	270,329	171,803	186,192	346,139	549,272	706,816
Central administration.....	45,170	33,060	35,460	47,800	67,690	78,549
Bureau of municipal-health work.....	13,520					
Full-time municipalities.....	141,398	87,680	82,880	96,950	86,520	100,460
Bureau of transmissible diseases.....	4,900	2,300	2,300	2,400	8,000	8,350
Bureau for suppression of uncinariasis.....	10,000	8,000	8,000	10,000	20,000	30,000
Bureau of vital statistics.....	2,600			3,310	3,420	4,035
Bureau of laboratories ²	18,560	15,020	16,400	17,900	18,240	19,565
Bureau of sanitary engineering.....	6,600	9,000	10,600	10,900	12,200	13,145
Bureau of food and drugs.....	2,800	2,800		3,200	4,800	5,040
Bureau of mosquito extermination.....			27,000	25,000	25,000	30,000
Bureau of tuberculosis control ⁴				25,000	40,000	50,000
Bureau of venereal diseases.....						
Bureau of social welfare.....						
Tuberculosis sanatoria.....						

Bureau	1921	1922	1923	1924	1925
Total budget.....	\$706,816	\$809,846	\$809,846	¹ \$1,413,586	¹ \$1,413,586
Legislative budget ¹	706,816	809,846	809,846	1,258,539	1,258,539
Central administration.....	78,549	84,557	84,357	109,132	109,132
Bureau of municipal-health work.....		47,364	47,364	58,624	58,624
Full-time municipalities.....	156,679	183,287	188,368	¹ 155,047	¹ 155,047
Bureau of transmissible diseases.....	8,350	10,152	10,153	15,100	15,100
Bureau for suppression of uncinariasis.....	30,000	30,000	30,000	60,000	60,000
Bureau of vital statistics.....	4,035	5,070	5,070	7,200	7,200
Bureau of laboratories ²	19,565	23,982	23,982	41,050	41,050
Bureau of sanitary engineering.....	13,145	13,224	13,225	13,578	13,758
Bureau of food and drugs.....	5,040	6,048	6,048	14,000	17,000
Bureau of mosquito extermination.....	30,000	30,000	30,000	60,000	60,000
Bureau of tuberculosis control ⁴	50,000	166,795	166,795	314,172	314,172
Bureau of venereal diseases.....				12,000	12,000
Bureau of social welfare.....				66,800	66,800
Tuberculosis sanatoria.....					

Bureau	1926	1927	1928	1929	1930
Total budget.....	¹ \$1,298,062	¹ \$1,299,494	¹ \$1,390,210	¹ \$1,650,447	¹ \$1,390,535
Legislative budget ¹	1,144,974	1,144,974	1,226,368	1,483,447	1,222,575
Central administration.....	102,228	102,228	99,980	95,421	95,421
Bureau of municipal-health work.....	76,932	76,932	76,932	83,500	83,500
Full-time municipalities.....	¹ 153,088	¹ 154,520	¹ 163,842	¹ 167,000	¹ 167,000
Bureau of transmissible diseases.....	15,900	15,900	14,700	19,000	19,000
Bureau for suppression of uncinariasis.....	150,000	150,000	150,000	150,000	150,000
Bureau of vital statistics.....	7,200	7,200	7,200	7,200	7,200
Bureau of laboratories ²	41,798	41,798	41,798	41,398	41,398
Bureau of sanitary engineering.....	13,580	13,580	13,580	11,165	11,165
Bureau of food and drugs.....	17,000	17,000	17,000	17,000	17,000
Bureau of mosquito extermination.....	50,000	50,000	50,000	50,000	50,000
Bureau of tuberculosis control ⁴	75,000	75,000	75,000	60,000	60,000
Bureau of venereal diseases.....	12,000	12,000	12,000	12,000	12,000
Bureau of social welfare.....	50,000	50,000	50,000	50,000	50,000
Tuberculosis sanatoria.....	236,824	238,256	229,144	237,468	212,228

¹ Municipal funds included. (See Table 253.)

² Includes tuberculosis sanatoria funds.

³ Bacteriological and chemical laboratories.

⁴ Sanatoria expenses included 1922-1925 inclusive.

TABLE 253.—*Total appropriations for insular department of health, by years*
PORTO RICO

Year	Total ap- propriation	Appropri- ation ex- clusive of tuberculosis sanatoria funds	Source of funds and amounts	
			Legisla- ture ¹	Municipal
1915.....	\$270, 329	\$270, 329	\$270, 329	-----
1916.....	171, 803	171, 803	171, 803	-----
1917.....	186, 192	186, 192	186, 192	-----
1918.....	346, 139	321, 139	346, 139	-----
1919.....	549, 272	509, 272	549, 272	-----
1920.....	706, 816	656, 816	706, 816	-----
1921.....	706, 816	656, 816	706, 816	-----
1922.....	809, 846	638, 051	809, 846	-----
1923.....	809, 846	638, 051	809, 846	-----
1924.....	1, 413, 586	1, 099, 414	1, 258, 539	\$155, 047
1925.....	1, 413, 586	1, 099, 414	1, 258, 539	155, 047
1926.....	1, 238, 062	1, 061, 238	1, 144, 974	153, 088
1927.....	1, 299, 494	1, 061, 238	1, 144, 974	154, 520
1928.....	1, 390, 210	1, 161, 066	1, 226, 368	163, 842
1929.....	1, 650, 447	1, 412, 979	1, 483, 447	167, 000
1930.....	1, 390, 535	1, 178, 307	1, 222, 575	167, 960

¹ Tuberculosis sanatoria funds included.

DISTRICT OF COLUMBIA

EXECUTIVE OFFICER

Organization.—In place of a board of health, the Board of Commissioners of the District of Columbia, who are appointed by the President and confirmed by the Senate, appoint a physician as health officer.

Term of office and salary.—The health officer serves at the pleasure of the Board of Commissioners and receives a yearly salary of \$6,500. In addition \$180 per annum is allowed for the maintenance of an automobile for office use.

POWERS OF THE HEALTH DEPARTMENT

Judicial, legislative, and executive powers.—The executive power of the health department is vested in the Commissioners of the District of Columbia. The health officer is authorized to execute and enforce all laws and regulations relating to public health and vital statistics under the direction of the commissioners. The health department has control over sanitation in general, milk supplies, food adulteration, nuisances, communicable diseases, medical inspection of schools, and quarantine. The prevention or pollution of water is under the control of the water department. The disposal of sewage is a function of the sewer division of the District government and the enforcement of the healing arts practice act is intrusted to the commission on licensure, of which the health officer is secretary-treasurer.

APPROPRIATIONS

Congress makes an annual appropriation to the health department of the District of Columbia, which is allotted to the various bureaus.

District of Columbia - Organization of the Department of Health in 1930

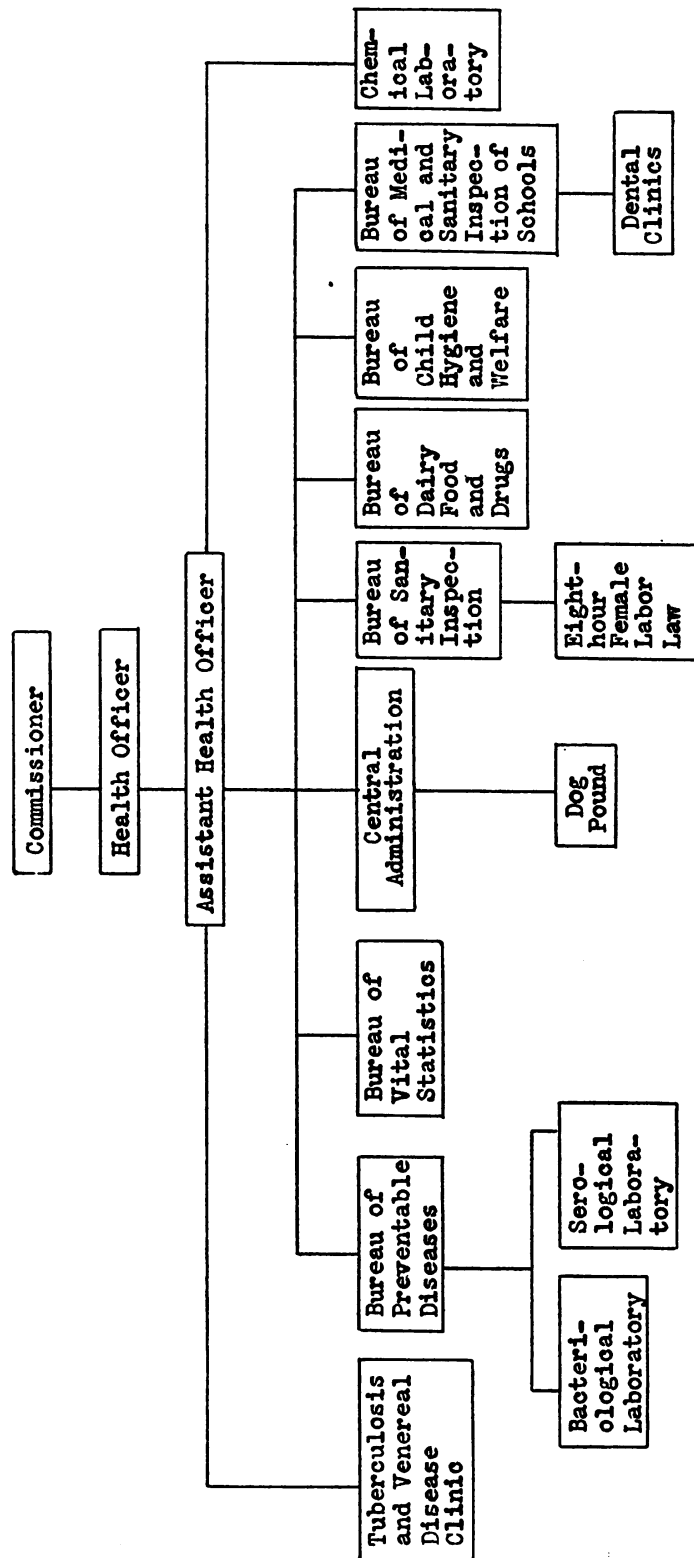


FIGURE 71

TABLE 252.—*Bureaus of the department of health in 1930*¹

DISTRICT OF COLUMBIA

Bureaus	Total budgets by bu-reaus	Number of per-sonnel	Salary of director	Salary of other per-sonnel	Total sal-aries
Central administration.....	\$28,720	12	\$6,500	\$22,220	\$28,720
Pound service.....	9,460	7	2,200	7,260	9,460
Bureau of preventable diseases.....	45,000	15	4,600	26,260	30,860
Bacteriological and serological laboratories.....	18,940	7	(²)	16,940	16,940
Tuberculosis clinic.....	12,100	9	(³)	8,640	8,640
Venereal-disease dispensary.....	12,100	7	600	6,080	6,680
Bureau of vital statistics.....	10,360	6	2,500	7,860	10,360
Bureau of sanitary inspection.....	44,200	23	2,600	41,600	44,200
8-hour female labor law.....	5,760	4	(⁴)	5,760	5,760
Bureau of child hygiene and welfare.....	54,000	45	2,800	40,590	43,390
Bureau of medical and sanitary inspection of schools.....	78,600	41	4,800	72,300	77,100
Bureau of dairy, food and drugs.....	66,120	25	4,600	53,420	58,020
Chemical laboratory.....	9,580	3	4,600	3,980	8,580

¹ Total appropriation, \$432,190; total appropriation exclusive of tuberculosis sanatoria funds, \$432,190; congressional legislative appropriation, \$432,190.

² Officials included whose time is devoted to more than 1 activity.

³ Director of bureau of preventable diseases is in charge.

⁴ Director is a volunteer and receives no salary.

⁵ Director of bureau of sanitary inspection is in charge.

⁶ Part-time official.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the health officer, an assistant health officer, a deputy health officer and chief clerk, seven clerks, and two messengers.

Civil service.—The employees of the health department are not civil-service appointees. A change in administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed through the District disbursing officer.

Purchases.—Supplies are purchased by the purchasing officer of the District.

Publicity.—The management of the publicity activities of the department is a function of the central office.

Press service.—Reporters for the daily papers call at the health department each day for news.

Bulletins.—A weekly bulletin is published by the department.

POUND SERVICE

Personnel.—The staff of this service in 1930 consisted of the pound-master, four laborers, a chauffeur, and a watchman.

Activities.—Dogs are prevented by law from running at large without a tax tag and, for four months each year, without muzzles unless held in leash.

BUREAU OF PREVENTABLE DISEASES

Personnel.—In 1930 the work of the bureau of preventable diseases was carried on by a director, who was also the director of the bacteriological laboratory. The staff included three clerks, two full-time

and two part-time physicians, two full-time and one part-time nurses, and four helpers.

Powers of the chief of the bureau.—The chief of the bureau is authorized to enforce the acts of Congress and the regulations of the commissioners of the District, under the direction of the health officer.

Reporting of diseases.—Cases of communicable diseases must be reported to the department at once by physicians or those in charge of the case.

Quarantine.—Quarantine measures are under the control of the health officer.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children throughout the District of Columbia.

Emergency fund.—There is a general emergency fund of \$4,000 under the supervision of the Commissioners of the District of Columbia to be used in case of riot, pestilence, public insanitary conditions, etc. The department has drawn on this fund to carry on contagious-disease work.

BACTERIOLOGICAL AND SEROLOGICAL LABORATORIES

Personnel.—The chief of the bacteriological laboratory is also the chief of the bureau of preventable diseases. In 1930 he was assisted by a serologist, a bacteriologist, two assistant bacteriologists, and three laboratory assistants.

Central laboratory.—The bacteriological and serological laboratories are combined and are served by the same staff.

Branch and private laboratories.—No branch laboratories have been established and no supervision is exercised over private laboratories.

Special laboratories.—A chemical laboratory is also maintained by the health department.

Activities.—During 1929, 28,886 examinations were made by the laboratories. The greater number of examinations were Wassermann blood tests, milk and water analyses, and tuberculosis sputa and diphtheria examinations.

Fees.—All examinations are made free of charge.

Biological supplies.—Typhoid vaccine is the only biological product which is manufactured. Diphtheria antitoxin, smallpox vaccine, and silver nitrate ampules are purchased. All biologicals are distributed free of charge to physicians and medical inspectors.

TUBERCULOSIS CLINIC

Personnel.—In 1930 the personnel of the tuberculosis clinic consisted of a director, three nurses, two part-time attending physicians, a part-time Röntgenologist, a part-time laryngologist, and a caretaker.

Clinic.—The tuberculosis clinic is maintained to carry out the laws and regulations adopted by Congress and the commissioners of the District. During 1929, 1,817 new patients were admitted and a total of 7,860 visits were made to the clinic, an increase of 2,292 visits over the preceding year.

Sanatorium.—A tuberculosis hospital with a capacity of 180 beds is maintained under the direction of the board of public welfare.

VENEREAL-DISEASE DISPENSARY

Personnel.—The staff of the venereal-disease dispensary in 1930 consisted of the director, a nurse, three part-time attending physicians, and a caretaker.

Dispensary.—During 1929, 2,554 new patients were admitted to the venereal-disease dispensary.

Treatments.—During 1929, 5,363 injections of arsphenamine were given.

Educational activities.—In connection with the clinic, motion pictures were exhibited biweekly during the winter months.

BUREAU OF VITAL STATISTICS

Personnel.—In 1930 the chief of the bureau of vital statistics was assisted by five clerks.

Registration districts.—The entire District of Columbia is one registration unit.

Local registrar.—The health officer is the only registrar. He does not receive additional compensation as local registrar.

Registration area.—The District of Columbia was admitted to the registration area for deaths in 1880 and to the registration area for births in 1915.

Reporting of deaths.—In 1929 all the deaths occurring in the District were reported by physicians. Deaths are reported to the health officer within 48 hours. Deaths from contagion must be reported within 8 hours.

Legal standards.—The model law is not used, but the standard certificate and international list of the causes of death have been adopted.

Reporting of births.—In 1929, 98 per cent of the births occurring in the District were reported; of these, 98.5 per cent were reported by physicians and 1.5 per cent by midwives. Births are reported to the health officer within 10 days.

Stillbirths.—Stillbirths are recorded on regular forms provided by the health department.

Blanks and postage.—The health department supplies the blanks for recording the returns and the physicians provide the postage.

Unlawful death.—Deaths due to other than natural causes are referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the health department.

Licensing.—Physicians and midwives are licensed by the commission on licensure. Undertakers are registered at the health department.

BUREAU OF SANITARY INSPECTION

Sanitary engineering.—All the activities pertaining to a bureau of sanitary engineering are under the control of the engineering department of the District. This department is separate from the health department.

Personnel.—Sanitary inspection was carried on by the health department, however, in 1930, under the following personnel: A chief sanitary inspector, an assistant chief, 20 sanitary inspectors, and a clerk.

Activities.—The principal activities of the bureau were the prevention and abatement of nuisances, sanitary inspection of houses located in public alleys, and smoke inspection.

8-HOUR FEMALE LABOR LAW

Personnel.—In 1930 the staff connected with the enforcement of the 8-hour female labor law consisted of a chief and an assistant sanitary inspector, listed under the bureau of sanitary inspection, three inspectors, and a clerk.

Activities.—During 1929, 1,505 establishments coming within purview of the 8-hour female labor law were registered. One hundred and ninety-four complaints were received and acted upon during that year.

BUREAU OF CHILD HYGIENE AND WELFARE

Personnel.—The personnel of the bureau of child hygiene and welfare included in 1930 a director, 15 nurses, 17 attending physicians, and 11 maids.

Prenatal clinics.—Three prenatal clinics were conducted by the health department in 1929.

Midwifery.—No instruction or supervision is given to midwives.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported by midwives within six hours to the health officer in order that the case may be under the supervision of a registered physician as soon as possible.

Child-welfare stations.—During 1929, 11 child-welfare stations were operated in the District. A total of 31,195 visits was made to infants and preschool children.

Eligibility requirements.—Public-health nurses in the District of Columbia must be registered nurses.

BUREAU OF MEDICAL AND SANITARY INSPECTION OF SCHOOLS

Personnel.—The medical inspection of schools was transferred to the health department in 1926. In 1930 the chief medical and sanitary inspector of public schools was assisted by 12 part-time medical inspectors, 10 full-time nurses, 8 part-time dental operators, and 4 full-time dental prophylactic operators, 4 part-time dental inspectors, and 2 physiotherapy aids.

Activities.—Dental clinics, eye clinics, and nutrition classes are held in addition to the routine medical examinations of school children which are conducted throughout the District. Parents are notified of defects found. Corrections are made by the health department to some extent.

BUREAU OF DAIRY, FOOD, AND DRUGS

Personnel.—The staff of the bureau of dairy, food, and drugs in 1930 consisted of the chief food inspector, the assistant food inspector, 9 dairy-farm inspectors, 13 food inspectors, and a clerk.

Activities.—This bureau carries on the inspection of food and drugs, issues permits to run places where food is handled, enforces the cold-storage laws, inspects slaughterhouses, and supervises fisheries.

Milk laws.—This bureau also enforces the milk laws. Dairies are licensed by the health department and samples of milk are taken daily for analysis.

CHEMICAL LABORATORY

Personnel.—The staff of the chemical laboratory in 1930 consisted of a chief, an assistant, and a skilled laborer.

Activities.—The work of the chemical laboratory is mainly confined to the bureau of food and drugs.

TABLE 255.—*Total budget, Congressional legislative budget for health work, and budgets by bureaus, by years*

DISTRICT OF COLUMBIA

Bureau	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$123,965	\$124,665	\$134,240	\$172,540	\$179,580	\$209,990	\$209,940	\$219,040
Congressional legislative budget.....	123,965	124,665	134,240	172,540	179,580	209,990	209,940	219,040
Central administration.....	17,920	17,920	18,120	18,900	19,020	19,020	19,020	19,020
Bureau of preventable diseases.....	25,000	25,000	30,000	40,000	40,000	45,000	40,000	40,000
Bureau of vital statistics.....	4,400	4,400	5,300	6,920	6,920	6,920	6,920	6,920
Bacteriological laboratory ^{1 2}	3,300	1,000	500	2,700	2,150	2,400	1,750	1,750
Pound service.....	3,200	3,600	3,800	4,400	5,840	5,840	5,840	5,840
Bureau of sanitary inspection.....	15,200	15,200	15,400	17,500	18,700	19,900	22,300	22,300
8-hour female labor law.....	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Bureau of dairy, food and drugs ¹	6,380	6,380	6,200	7,100	7,420	7,520	7,520	7,620
Chemical laboratory ¹		3,335	500	1,000	1,000	1,000	1,000	1,000
Tuberculosis clinic.....				12,500		12,500	12,500	12,500
Venereal-disease dispensary.....				12,500	12,500	12,500	12,500	12,500
Bureau of child hygiene and welfare.....					15,000	15,000	15,000	18,000

¹ Amounts for maintenance only; salaries not included.

² From 1928 on includes serological laboratory.

TABLE 255.—*Total budget, Congressional legislative budget for health work, and budgets by bureaus, by years—Continued*

DISTRICT OF COLUMBIA—Continued

Bureau	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$208,540	\$211,840	\$239,440	\$252,930	\$351,350	\$374,590	\$399,455	\$432,190
Congressional legislative budget.....	208,540	211,840	239,440	252,930	351,350	374,590	399,455	432,190
Central administration.....	19,020	19,020	25,060	24,280	25,080	25,080	28,720	28,720
Bureau of preventable diseases.....	40,000	40,000	40,000	39,260	40,000	40,000	43,000	45,000
Bureau of vital statistics.....	6,920	6,920	8,760	9,120	8,880	8,880	10,180	10,360
Bacteriological laboratory ^{1 2}	1,500	1,500	1,500	1,500	1,500	2,000	1,667	2,000
Pound service.....	5,840	5,840	8,200	7,740	7,980	9,520	8,100	9,460
Bureau of sanitary inspection.....	22,300	22,300	34,160	37,020	39,000	39,000	43,960	44,200
8-hour female labor law.....	4,500	4,500	6,230	5,040	5,040	5,040	5,040	5,760
Bureau of dairy, food and drugs ¹	6,120	6,264	6,488	4,350	6,200	6,100	6,100	8,100
Chemical laboratory ¹	750	1,000	1,000	1,000	1,000	1,000	833	1,000
Tuberculosis clinic.....	12,500	12,500	14,500	7,250	7,500	10,000	10,000	12,100
Venereal-disease dispensary.....	12,500	12,500	14,500	7,250	7,500	10,000	10,000	12,100
Bureau of child hygiene and welfare.....	18,000	18,000	18,000	25,000	33,000	45,000	48,360	54,000
Bureau of medical and sanitary inspection of schools.....					66,800	66,800	68,340	78,600

¹ Amounts for maintenance only; salaries not included.² From 1928 on includes serological laboratory.TABLE 256.—*Total appropriations for the department of health, by years*

DISTRICT OF COLUMBIA

Year	Total appropriation	Congressional legislative appropriations	Year	Total appropriation	Congressional legislative appropriations
1915.....	\$123,965	\$123,965	1923.....	\$208,540	\$208,540
1916.....	124,665	124,665	1924.....	211,840	211,840
1917.....	134,240	134,240	1925.....	239,440	239,440
1918.....	172,540	172,540	1926.....	252,930	252,930
1919.....	179,580	179,580	1927.....	351,350	351,350
1920.....	209,990	209,990	1928.....	374,590	374,590
1921.....	209,940	209,940	1929.....	399,455	399,455
1922.....	219,040	219,040	1930.....	432,190	432,190

HEALTH SERVICE IN CANADA

I. Department of Pensions and National Health

HISTORY

In 1919, the Dominion department of health was established. In 1928 this department was merged with that of the soldiers' civil reestablishment, creating the department of pensions and national health, Canada. The act of Parliament (18-10, George V, chap. 39, an act respecting the department of pensions and national health), defines the functions of that department, which are, as the title suggests, divided into two distinct divisions of pensions and of national health.

FUNCTIONS

The functions of the national health division are to protect the country against the entrance of infectious disease; to exclude immigrants who might become a charge upon the country; to treat sick

and injured mariners; to see that men employed on public construction work are provided with proper medical care; to set the standards and control the quality of food and drugs, except meat and canned goods which are under the department of agriculture; to control proprietary medicines and the importation and exportation of habit-forming drugs, such as morphine, cocaine, etc.; to prevent the spread of venereal diseases; to care for lepers and to cooperate with the Provinces in preserving and improving the public health and to aid in the conservation of child life.

The divisions of the department of health which existed prior to the merger in 1928 are still maintained.

Maritime quarantine.—The division of maritime quarantine is concerned with the prevention of the importation of major infectious diseases into the country. Quarantine stations are in operation at the several maritime ports. Every vessel coming from abroad is inspected, and passengers or crews who are found to be suffering from infectious disease, together with contacts, are removed to the quarantine station after the principles laid down in the Convention of Paris, 1926.

Medical care of immigrants.—The examination and medical care of immigrants is associated with quarantine. There has recently been placed in Great Britain, Ireland, and on the Continent a staff of Canadian doctors whose duty it is to examine all intending emigrants to Canada at their homes and points of origin, or at the seaport of embarkation in Europe. By this arrangement it is hoped to obviate the hardships which have so often occurred because of the deportation of mental or physically disabled immigrants after they have reached Canada.

Treatment of lepers.—Two lazarettos for the treatment of leprosy have been in operation for many years, one at Tracadie in the Province of New Brunswick, and the other at William Head in the Province of British Columbia. These are under the direction of the department, and very great advances have been made, not only in providing comforts for the lepers, but in the actual treatment of the disease.

Marine hospital service.—The department is authorized, under Part V of the Canada shipping act, to treat sick and injured mariners entering Canadian ports on the payment of certain dues by ship-owners. Hospitals, hospital facilities, and medical care are provided through the division of marine hospitals service.

Control of venereal diseases.—The department cooperates with the Provinces in the control of venereal diseases. A sum of about \$100,000 is divided pro rata amongst the Provinces annually for this purpose. The Provinces must also expend at least an equal amount.

Child welfare.—In the field of child welfare, the department co-operates with the provincial departments and voluntary organizations in directing the efforts of the various bodies concerned with child welfare. Literature of value to parents in the care of children and homes is distributed throughout the country. In the problem of maternal mortality valuable assistance has been given to the Provinces through statistics and other means whereby public opinion has been directed to the terrible wastage of lives occurring because of improper prenatal care and careless medical attention, or entire lack of this, during maternal periods and early childhood.

Medical care for workmen.—The public works health act is administered by the department of pensions and national health. Under this act, the department is required to see that men working on construction work, canals, railroads, and other forms of public works are provided with efficient medical and hospital care.

Food and drugs.—The food and drugs branch of the department under the direction of the chief Dominion analyst has to do with the safeguarding of foods and drugs from the standpoint of adulteration. Inspectors pick up samples throughout the country, which are analyzed in the various departmental laboratories.

Patent medicines.—The proprietary or patent medicine branch operates in a similar manner to the food and drugs branch. No patent medicine may be offered to the public as a "cure" for disease. All patent medicines must be registered, and it is the duty of the department to see that they are of some value, not dangerous, and that all potent drugs are stated on the label together with the dosage.

Water supplies.—A special division conducted by a sanitary engineer has been created to provide a safe water supply on board vessels, to prevent the pollution of rivers and streams through discharging sewage; and to cooperate with the International Joint Commission in the enforcement of rules and regulations relating to questions involving public health with regard to boundary waters between the United States of America and Canada. This division also supervises Federal public buildings and offices with a view to conserving and promoting the health of civil servants and other Government employees.

Dominion hospitals.—The division of hospitalization offers expert advice in the construction and maintenance of hospitals.

Narcotics.—Since the introduction of opium smoking in Canada 30 or more years ago, the use of habit-forming drugs, such as morphine, heroin, and cocaine has increased. It is estimated there are about 8,000 drug addicts in Canada. One of the first steps taken by the Department of Health was the creation of a narcotic branch. Through this branch the importation and sale of habit-forming drugs are con-

trolled, in accordance with the principles laid down by the old Hague convention and now by the League of Nations. Wholesale agents, physicians and druggists are required to keep records of importations and sales, and to forward their records periodically to the Department. The legitimate use of these habit-forming drugs is thus controlled.

Dominion laboratory of hygiene.—The laboratory of hygiene is concerned with the examination of bacteriological and serological products, such as vaccines and sera, and the standardization of the more potent remedies, for example, digitalis and strophanthus. Research is an important function of the laboratory.

Dominion council of health.—By act of Parliament in 1919, a Dominion council of health was created consisting of the deputy minister of health of Canada, acting as chairman, the chief executive officer of the various departments of health, and representatives of labor, the farm, public health science, education, and women's organizations. Through this body, matters of health which affect the country either in whole or in part are discussed, uniformity is established, and cooperation secured. In order to preserve the principle of provincial sovereignty, a section was inserted in the public health act stating that "Nothing in this act or in any regulation made thereunder shall authorize the minister or any officer of the department to exercise any jurisdiction or control over any provincial or municipal board of health or other health authority operating under the laws of any Province."

II. General Summary of the Provincial Health Services

PROVINCIAL BOARDS OF HEALTH

ORGANIZATION

The organization of the provincial boards of health in the Dominion of Canada differs considerably. The number of members on the board, their legal qualifications, method of appointment, term of office, compensation, and the number of meetings held each year are shown in Table 257. It will be noted that there are no boards of health in Nova Scotia and Ontario. The board of health in Alberta, which is composed of the deputy minister of health, the provincial engineer, and the provincial bacteriologist as ex officio members, is obviously different from the usual board of health. Another exception is British Columbia, where the prime minister and his cabinet of six members may sit as a board of health.

TABLE 257.—*Provincial boards of health, 1930*

Province	Number of members	Legal qualifications	Appointed by lieutenant governor in council	Length of term in years	Expiration of term	Salary per diem	Number of meetings
Alberta.....	3	Deputy minister of health, bacteriologist, sanitary engineer.	Yes.....	(¹)	(¹)	(¹)	3
British Columbia.....	7	Prime minister and cabinet.	(¹)	5	All at once..	None.	-----
Manitoba.....	9	Minister of health, deputy minister, bacteriologist, 5 physicians, a lawyer.	Yes.....	3	-----do-----	\$10	2
New Brunswick.....	7	Minister of health, chief medical officer, chief of laboratories, 4 district medical officers.	Yes.....	(²)	-----do-----	(³)	4
Nova Scotia.....	(⁴)	-----	-----	-----	-----	-----	-----
Ontario.....	(⁴)	-----	-----	-----	-----	-----	-----
Quebec.....	8	Physicians of 5-year experience.	Yes.....	(²)	All at once..	10	4
Saskatchewan.....	6	Deputy minister, 3 physicians, veterinary, civil engineer.	Yes.....	2	-----do-----	30	1

¹ Ex officio members.² During the pleasure of the ministry.³ Voted each year by the legislature.⁴ No provincial board of health.

LEGAL QUALIFICATIONS

With the exception of British Columbia, Nova Scotia, and Ontario, the Provinces require a certain number of physicians on the provincial board of health. Quebec specifies that the members must have had five years' practice in medicine. Manitoba requires a lawyer and Saskatchewan requires a veterinarian and an engineer on the board of health.

APPOINTMENT OF MEMBERS

With the exception of British Columbia, Nova Scotia, and Ontario, the members of the board of health are appointed by the lieutenant governor in council in the remaining five Provinces.

EX OFFICIO MEMBERS

As has already been stated, the boards of health of Alberta and British Columbia are entirely composed of ex officio members. In Manitoba and New Brunswick the minister of health, the deputy minister, and the provincial bacteriologist are ex officio members, and in Saskatchewan the deputy minister is an ex officio member of the board.

TERM OF OFFICE

In New Brunswick and Quebec the members of the board of health hold office during the pleasure of the ministry. In British Columbia they serve for five years; in Manitoba, three years; in Saskatchewan, two years; and in Alberta as long as they hold their various provincial offices.

All the terms of the members of the boards of health expire at the same time in British Columbia, Manitoba, New Brunswick, Quebec, and Saskatchewan.

COMPENSATION

In four of the six Provinces having a board of health, namely, Manitoba, New Brunswick, Quebec, and Saskatchewan, the members receive a per diem allowance.

MEETINGS OF THE BOARD

Four meetings are held by the board of health each year in New Brunswick and Quebec; three meetings in Alberta; two in Manitoba; and one in Saskatchewan.

APPROPRIATIONS

The provincial legislature in each Province makes an annual appropriation to the department of health. This appropriation is budgeted to the various divisions of the health department in Nova Scotia and Quebec.

Figure 72 shows the increase in the amounts appropriated by the provincial legislatures for health work exclusive of tuberculosis sanatoria. Information comparable to that of the other provinces was not available for Saskatchewan which has, therefore, been omitted from the graph.

According to Table 258 it will be noted that the average per capita appropriation for health work by seven of the provincial legislatures was 0.253 in 1930.

TABLE 258.—*Total legislative appropriation population and per capita tax, 1930¹*

Province	Estimated 1930 population	Provincial legislative appropria- tion for health work ²	Per capita
New Brunswick.....	420, 270	\$157, 440	\$0. 374
Manitoba.....	662, 210	228, 544	. 345
Alberta.....	622, 015	201, 751	. 323
Saskatchewan.....	871, 324	242, 745	. 278
Ontario.....	3, 299, 395	807, 450	. 244
Quebec.....	2, 681, 074	564, 888	. 210
British Columbia.....	643, 470	125, 346	. 194
Total.....	9, 200, 658	2, 328, 164	. 253

¹ Data for Nova Scotia not available.

² Exclusive of tuberculosis sanatoria funds and hospital grants.

POWERS AND DUTIES OF THE PROVINCIAL DEPARTMENTS OF HEALTH

The executive power of the provincial departments of health is vested in a minister of health in each Province. He in turn delegates his executive authority to a deputy minister who is the health officer.

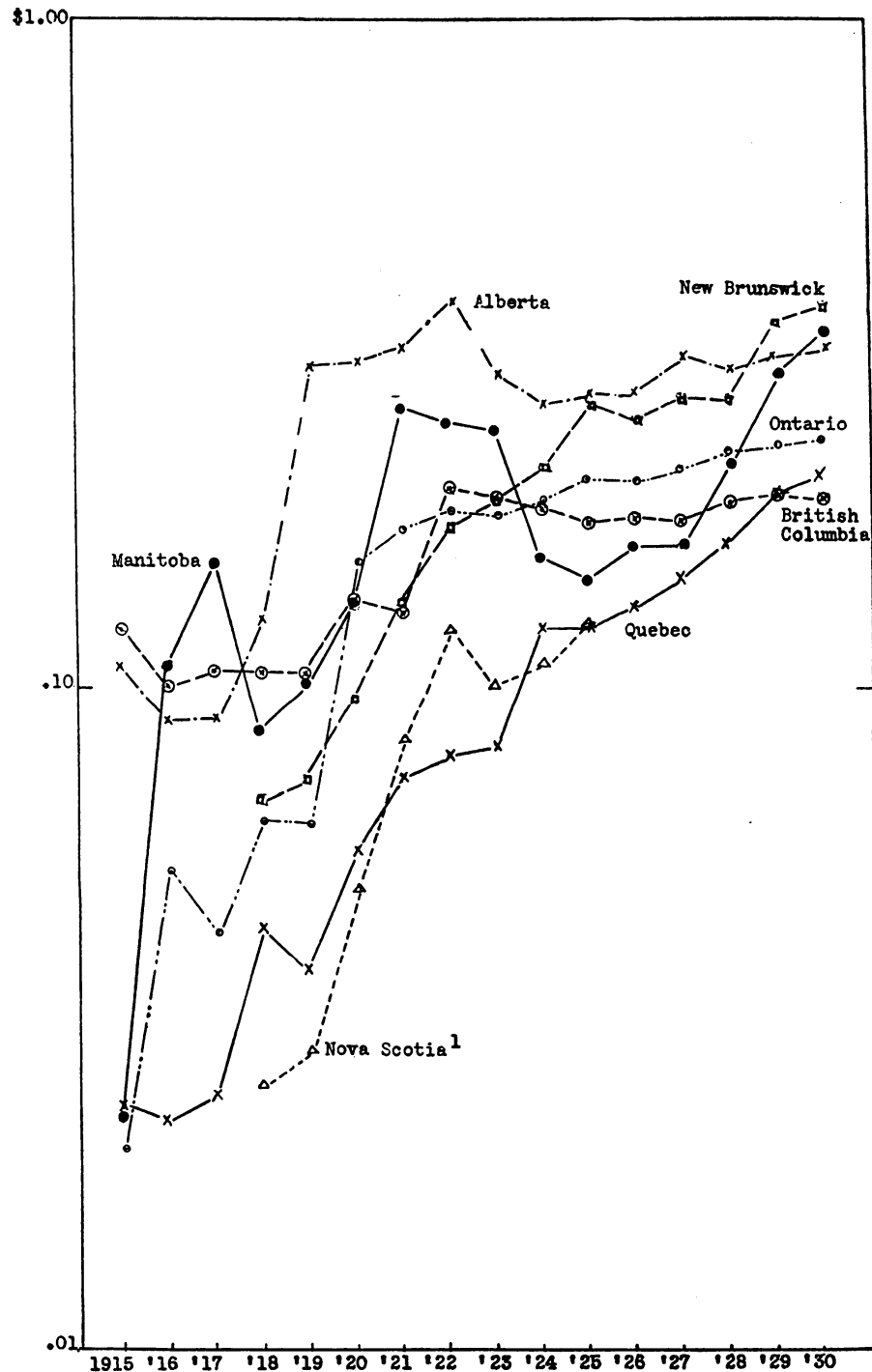


FIGURE 72.—Per capita increase in amounts appropriated by the provincial legislatures for public health work, 1915-1930. (Based on appropriations exclusive of tuberculosis sanatoria funds)

¹ Data not available after 1925.

Table 259 states whether or not the provincial health departments have quasi-judicial powers, legislative and executive powers, control of midwifery, milk supplies, food adulteration, and the enforcement of the medical practice act.

QUASI JUDICIAL POWER

It will be observed from Table 259 that five of the provincial departments of health have no quasi judicial power.

LEGISLATIVE AND EXECUTIVE POWERS

In general it may be said that all the provincial departments of health have legislative and executive authority in relation to sanitation, water pollution, sewage disposal, communicable disease control, nuisances, and quarantine.

MIDWIFERY

Midwifery is not recognized as a problem in the Dominion of Canada, and with the exception of British Columbia the provincial departments of health exercise no control in this matter.

MILK SUPPLIES

The control of milk supplies is carried on by the provincial departments of health in Alberta, British Columbia, Manitoba, New Brunswick, and Saskatchewan; by local ordinance in Nova Scotia and Quebec; and by the department of agriculture in Ontario.

FOOD ADULTERATION

Throughout the Dominion the Federal Government enforces the laws concerning food adulteration. In Alberta, however, the sanitary engineering branch at the health department has some jurisdiction over this activity.

MEDICAL PRACTICE ACT

The enforcement of the medical practice act is not intrusted to the provincial department of health in any of the provinces. In Alberta, New Brunswick, Ontario, and Saskatchewan the function has been delegated to the College of Physicians and Surgeons and in Nova Scotia to the provincial medical board.

TABLE 259.—*Powers and duties of the provincial departments of health*

Province	Quasi-judicial power	Legislative and executive powers	Midwifery	Milk supplies	Food adulteration	Enforcement of medical practice act
Alberta.....	Yes.....	Yes.....	No.....	Yes.....	Yes ¹	No. ²
British Columbia.....	No.....	Yes.....	Yes.....	Yes.....	No.....	No.
Manitoba.....	Yes.....	Yes.....	No.....	Yes.....	No.....	No.
New Brunswick.....	No.....	Yes.....	No.....	Yes.....	No.....	No. ²
Nova Scotia.....	No.....	Yes.....	No.....	No ³	No.....	No. ⁴
Ontario.....	No.....	Yes.....	No.....	No ³	No.....	No. ²
Quebec.....	Yes.....	Yes.....	No.....	No ³	No.....	No.
Saskatchewan.....	No.....	Yes.....	No.....	Yes.....	No.....	No. ²

¹ Under sanitary engineering branch.

² College of physicians and surgeons.

³ Under local ordinance.

⁴ Provincial medical board.

⁵ Under department of agriculture.

EXECUTIVE OFFICER

Table 260 gives the title of the minister of health in each Province and the title of the deputy minister of health. It also indicates how the deputy minister is chosen, whether he is elected from or outside the board or is a member of the board, the length of his term, and whether he receives traveling expenses.

TABLE 260.—*Executive officers, 1930*

Province	Minister ¹	Deputy minister of health				
		Title	Chosen by	Elected from or outside board	Member of board	Term in years
Alberta.....	Minister of health.....	Deputy minister of health.....	Lieutenant governor in council.....	Outside.....	Yes.....	Yes.
British Columbia.....	Provincial secretary.....	Provincial health officer.....	Prime minister.....	do.....	Yes.....	Yes.
Manitoba.....	Minister of health and public welfare.....	Chief officer of health.....	Lieutenant governor in council.....	do.....	Yes.....	Yes.
New Brunswick.....	Minister of health and labor.....	Chief medical officer.....	do.....	do.....	Yes.....	Yes.
Nova Scotia.....	Minister of agriculture.....	Provincial health officer.....	Governor in council.....	do.....	()	Yes.
Ontario.....	Minister of health.....	Deputy minister of health.....	Lieutenant governor in council.....	()	()	Yes.
Quebec.....	Provincial secretary and registrar.....	Director provincial bureau of health.....	do.....	Outside.....	Yes.....	Yes.
Saskatchewan.....	Minister of public health.....	Deputy minister of public health.....	Minister of public health.....	do.....	Yes.....	Yes.

¹ Each minister is a member of the cabinet and is appointed by the prime minister, with the exception of Manitoba and New Brunswick where the minister of health is appointed by the lieutenant governor in council.

² During the pleasure of the lieutenant governor in council.

³ Unlimited.

⁴ During the pleasure of the ministry.

⁵ No provincial board of health.

MINISTERS OF HEALTH

In each Province the minister of health is a member of the cabinet and therefore is chosen by the premier, except in the Provinces of Manitoba and New Brunswick where the minister of health is appointed by the lieutenant governor in council. Each minister of health delegates his executive authority to a deputy minister.

LEGAL QUALIFICATIONS OF DEPUTY MINISTERS

With the exception of the Provinces of Alberta and Saskatchewan, where no legal qualifications are specified, each deputy minister must be a physician. New Brunswick also requires the deputy minister to be a doctor of public health.

The legal qualifications are stated as follows:

Alberta.....	No qualifications.
British Columbia.....	Registered medical practitioner.
Manitoba.....	Registered medical practitioner.
New Brunswick.....	Qualified medical practitioner with a diploma of public health.
Nova Scotia.....	Qualified medical practitioner.
Ontario.....	Qualified medical practitioner.
Quebec.....	Physician.
Saskatchewan.....	No qualifications.

METHOD OF CHOOSING THE DEPUTY MINISTER

Reverting to Table 260 it will be noted that the deputy minister of health is chosen by the lieutenant governor in council in Alberta, Manitoba, New Brunswick, Nova Scotia, Ontario, and Quebec; by the prime minister in British Columbia; and by the minister of health in Saskatchewan.

MEMBER OF BOARD

With the exception of Nova Scotia and Ontario, where there is no board of health, the deputy minister is a member of the provincial board of health in each Province, is chosen from outside the board, and becomes an ex officio member thereof.

TERM OF OFFICE

The deputy minister serves during the pleasure of the lieutenant governor in council in Alberta, Manitoba, Nova Scotia, and Quebec. In British Columbia the retiring age, set at 65 years by the civil service act, is the only limitation. The executive officer serves during the term of the government, the maximum being five years in New Brunswick and during the pleasure of the provincial government in Ontario and Saskatchewan.

SALARY

The salary of the deputy minister is given in Table 260 under the section on central administration. It will be noted that the salaries range from \$4,000 in New Brunswick to \$6,000 in Ontario and Quebec. In comparing the salaries of the executive officers in 1925 with those for 1930, it will be noted that four of the Provinces have increased the salary of the executive officer. The arithmetic average for the salary of the chief officer of health, as based on the 1930 amounts in seven Provinces, is \$5,011.

TRAVELING EXPENSES

The necessary traveling expenses of the deputy minister are paid in each Province.

CENTRAL ADMINISTRATION

ORGANIZATION

Table 261 gives the name of the division in charge of the central administration, the total amount appropriated for this activity, the number of persons employed, and the salary of the director for 1925 and 1930.

Central administration includes the routine administrative activities required in the supervision of the various divisions. In addition, in Alberta the administration of the mental hospitals, the training school for mental defectives, the tuberculosis sanatorium, and the hospital act are functions of the central office.

TABLE 261.—*Executive office, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for central administration		Personnel		Salary of deputy minister	
		1925	1930	1925	1930	1925	1930
Alberta.....	Central administration branch.....	\$12, 100	\$14, 370	5	7	\$4, 500	\$5, 000
British Columbia.....	Central administration.....	8, 330	102, 984	4	3	4, 320	4, 680
Manitoba.....	do.....	40, 259	15, 760	6	4	1, 000	4, 600
New Brunswick.....	Executive department.....	20, 755	44, 950	¹ 6	16	4, 000	4, 000
Nova Scotia.....	Central administration.....	9, 051	(²)	3	3	4, 000	(²)
Ontario.....	do.....	120, 155	46, 325	26	12	5, 000	6, 000
Quebec.....	Division of central administration.....	(³)	(³)	4	9	6, 000	6, 000
Saskatchewan.....	General administration.....	14, 620	15, 280	4	5	6, 000	4, 800

¹ Officials included whose time is devoted to more than 1 activity.

² Data not available.

³ Appropriation voted in a lump sum for central administration, vital statistics, provincial laboratory, and sanitary engineering.

In Ontario the director of the department of health is also the director of public charities, in which capacity he is in charge of the funds of hospitals and charitable institutions.

In addition to the general activities of the division of central administration there are certain functions ordinarily assigned to

special divisions which are conducted by the central administrative division in some Provinces. For example, in British Columbia, New Brunswick, Nova Scotia, Quebec, and Saskatchewan all activities relative to public-health education, and publicity measures are supervised by the central administrative division. In New Brunswick and Nova Scotia the executive health officer has charge of sanitary engineering activities, in New Brunswick all activities pertaining to epidemiology are supervised by the central office, and in British Columbia child hygiene and nursing activities are a function of the central division.

The percentage of the total provincial appropriation expended by the central administrative office has determined the order in which the Provinces are listed in Table 262.

TABLE 262.—*Provinces arranged according to the percentage of the total legislative appropriation allotted to central administrative activities in 1930*¹

Province	Total provincial appropriation	Provincial legislative appropriation for central administration	Per cent
British Columbia.....	\$125,346	\$97,484	78.8
New Brunswick.....	157,440	44,950	28.6
Alberta.....	201,751	14,370	7.1
Manitoba.....	228,544	15,760	6.9
Saskatchewan.....	242,745	15,280	6.3
Ontario.....	807,450	46,325	5.7

¹ Data not available for Nova Scotia and Quebec.

CIVIL SERVICE

The employees of the provincial departments of health are under civil service except in the Province of Nova Scotia.

DISBURSEMENT OF FUNDS

Table 263 gives the method for the disbursement of public funds. In British Columbia, Manitoba, Nova Scotia, Ontario, Quebec, and Saskatchewan funds are disbursed by the treasury department, in New Brunswick by the comptroller general, and in Alberta by the department of public health.

TABLE 263.—*Methods of disbursing public-health funds*

Province	Funds disbursed by—	Upon the approval of—
Alberta.....	Department of public health.....	Provincial auditor.
British Columbia.....	Treasury department.....	Provincial secretary and the health officer.
Manitoba.....	do.....	Minister of health and public welfare.
New Brunswick.....	Comptroller general.....	Minister and chief medical officer.
Nova Scotia.....	Provincial cashier.....	Provincial health officer.
Ontario.....	Provincial treasurer.....	Minister of health and deputy minister.
Quebec.....	do.....	Minister of health.
Saskatchewan.....	Treasury department.....	Deputy minister and provincial auditor.

PURCHASE OF SUPPLIES

The method by which supplies are purchased in each Province is indicated in Table 264.

In three Provinces—Alberta, British Columbia, and Manitoba—purchases are made through the Government purchasing agent. In Ontario equipment is purchased by the department of public work, while office supplies are bought by the health department. In the remaining four Provinces this is a function of the department of health itself.

TABLE 264.—*Supplies purchased by requisition to—*

Alberta.....	Supervisor of purchases.
British Columbia.....	Government purchasing department.
Manitoba.....	Government purchasing department.
New Brunswick.....	Minister of health and chief medical officer.
Nova Scotia.....	Department of health.
Ontario.....	Department of public work or department of health.
Quebec.....	Department of health.
Saskatchewan.....	Department of health.

COUNTY, DISTRICT, AND MUNICIPAL HEALTH WORK

COUNTY HEALTH WORK

Quebec established the first full-time county health organization in Canada in 1926. At the close of 1930 Quebec had 23 full-time organizations representing 29 counties, British Columbia had 3 full-time counties, and Manitoba and Saskatchewan had 1 each. Table 265 and Figure 73 show the steady growth of full-time service in the Provinces since 1926.

TABLE 265.—*Number of full-time county health organizations in Canada, 1926–1930*

Province	1926	1927	1928	1929	1930
Quebec.....	4	6	10	17	29
British Columbia.....		1	1	2	3
Saskatchewan.....				1	1
Manitoba.....					1
Total.....	4	7	11	20	34

Quebec has a separate division for county health work, the budget being included with the lump appropriation for health work. A full-time director is in charge and in 1930 received a salary of \$4,500.

DISTRICT HEALTH WORK

New Brunswick is organized on the district health service basis. The Province is divided into four health districts with a district medical health officer over each. These health officers are appointed by the lieutenant governor in council upon the recommendation of the

minister of health and are on the staff of the department of health. Each county constitutes a subhealth district, and the district medical officer is the chairman of the subdistrict board of health. The 16 subdistricts combined in the 4 health districts are subsidiary to the department of health through the district medical officer. Approximately \$50,000 were voted annually by the cities for the maintenance of the district health department.

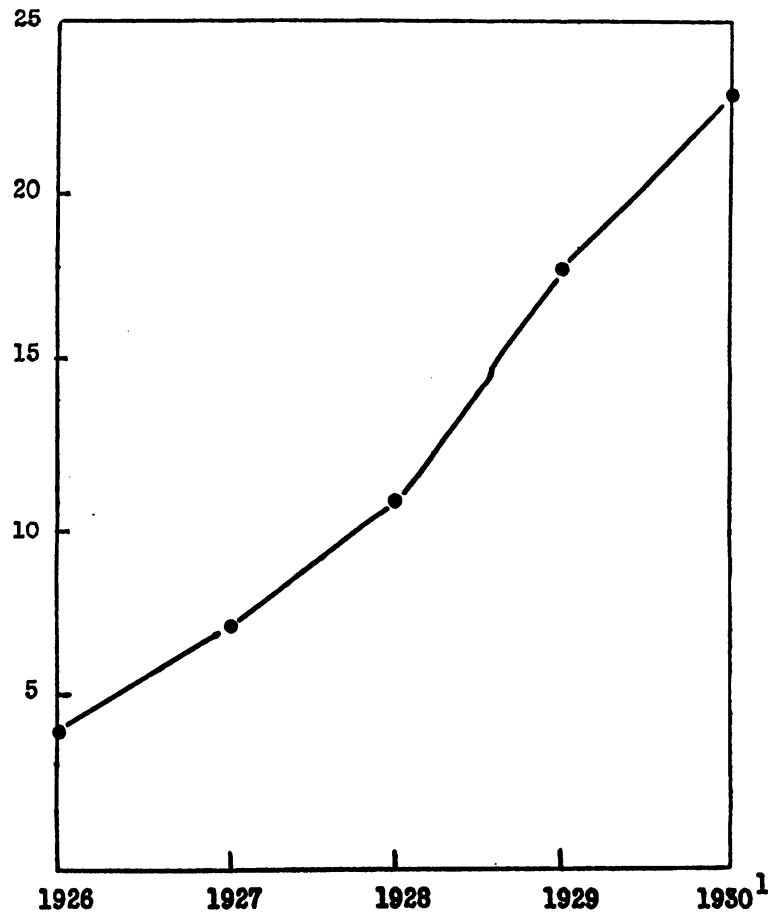


FIGURE 73.—Growth in the number of full-time county health organizations in the Provinces, 1926-1930

Ontario is divided into eight districts, with a district health officer presiding over each except in cities of 50,000 and over. These health officers are paid by the provincial health department, and in the unorganized sections of the Province they have direct supervision of public-health matters.

In addition to county health work in Quebec there are 19 full-time district health officers who serve under the supervision of the inspector general in controlling communicable diseases.

¹ Up to October 15, 1930.

MUNICIPAL HEALTH WORK

In Alberta each municipality is a health district, but only the two largest cities have full-time health officers.

There are three full-time municipal health organizations in British Columbia. The provincial health department acts in a supervisory capacity toward them.

Every municipal council in Nova Scotia is authorized to appoint a medical health officer. In 1929 there were about 65 such officers, receiving salaries which ranged from \$100 to \$2,500 a year.

In addition to the district health work in Ontario there are 900 organized municipalities, and each is required to appoint a local board of health, the executive officer of which is the medical officer of health. The provincial health department acts in a supervisory capacity toward these local health organizations.

COMMUNICABLE-DISEASE CONTROL

ORGANIZATION

Table 266 gives the name of the division in charge of communicable diseases in each Province, the total appropriation, the number of persons employed, and the salary of the director for 1925 and 1930. Alberta, British Columbia, Manitoba, Ontario, Quebec, and Saskatchewan have separate divisions for the control of communicable diseases. In New Brunswick this activity is under the direction of the chief medical officer and the district health officers, and in Nova Scotia communicable-disease control comes under the jurisdiction of the minister of public works and mines.

TABLE 266.—Communicable-disease control, 1930

Province	Division in charge in 1930	Total appropriation for communicable-disease control		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Communicable disease branch....	\$20,434	\$24,570	3	4	\$3,200	\$3,000
British Columbia.....	Division of epidemiology.....		5,700		2		3,600
Manitoba.....	Division of communicable diseases.....	(¹)	41,854	(¹)	6	(¹)	4,000
Nova Scotia.....	Under minister of public works and mines.....	20,891	(²)	3	(²)	3,500	(²)
Ontario.....	Division of preventable diseases.....	248,115	318,400	10	10	3,800	4,200
Quebec.....	Division of communicable diseases.....	87,127	97,405	20	20	4,000	4,000
Saskatchewan.....	Division of communicable diseases and cancer service.....	(⁴)	(⁴)	6	4	4,000	4,250
New Brunswick.....	Under subdistricts of health.....						

¹ Included under central administration.

² Data not available.

³ Officials included whose time is devoted to more than 1 activity.

⁴ Included with the appropriation for public health nursing, sanitation, and disease prevention.

In comparing the amounts appropriated for epidemiology in 1925 with those for 1930, it will be noted that Alberta, Ontario, and Quebec have increased their appropriations. In 1929 British Columbia made an initial appropriation. Up to 1929 the funds for epidemiology were included under central administration in Manitoba. The arithmetic salary of an epidemiologist was \$3,942 as based on the 1930 amounts for six Provinces.

The percentage of the total provincial legislative appropriation allotted to communicable-disease control has determined the order in which the Provinces are listed in Table 267.

TABLE 267.—*Percentage of total legislative appropriation allotted to communicable-disease control, 1930*¹

Province	Provincial legislative appropriation for health work ²	Appropriation for communicable-disease control	Per cent
Ontario.....	\$807,450	\$318,400	39.4
Manitoba.....	228,544	41,854	18.3
Quebec.....	564,888	97,405	17.2
Alberta.....	201,751	24,570	12.2
British Columbia.....	125,346	1,700	1.4

¹ Under subhealth districts in New Brunswick; data not available in Nova Scotia; under appropriation for public-health nursing, sanitation, and disease prevention in Saskatchewan.

² Exclusive of tuberculosis-sanatoria funds and hospital grants.

REPORTING OF DISEASES

Table 268 indicates for each Province the persons reporting cases of communicable disease to the provincial department of health, states when cases are reported, by whom quarantine measures are enforced, whether or not smallpox vaccination is compulsory, and if an emergency fund is available for use in case of an epidemic.

It will be noted that the methods of procedure are not uniform. Cases of communicable disease are reported to the department of health by the local health officers in Alberta, British Columbia, Ontario, Quebec, and Saskatchewan; by the medical health officers in Manitoba and Nova Scotia; and by the secretary of the subhealth districts in New Brunswick.

The frequency with which diseases are reported to the provincial departments of health also vary. In New Brunswick, Nova Scotia, Ontario, and Saskatchewan diseases must be reported weekly; in Alberta, British Columbia, and Manitoba, within 24 hours; and in Quebec, at once.

QUARANTINE MEASURES

The enforcement of quarantine measures is a responsibility of the local health officers in Alberta, British Columbia, Nova Scotia, Ontario, Quebec, and Saskatchewan. In the unorganized sections

of Ontario the district health officers of the provincial health department have charge of quarantine. In Manitoba the medical health officers and in New Brunswick the subdistrict health officers are charged with the enforcement of these measures.

SMALLPOX VACCINATION

Smallpox vaccination for school children is required in British Columbia, New Brunswick, Nova Scotia, and Quebec. It may be made compulsory by the provincial health department in Manitoba, Ontario, and Saskatchewan.

EMERGENCY FUND

An emergency fund for use in case of an epidemic is available in all the Provinces. In Alberta, British Columbia, New Brunswick, Nova Scotia, Quebec, and Saskatchewan this fund is obtained from the provincial government.

TABLE 268.—*Communicable-disease control*

Province	Cases of communicable disease reported to the provincial department of health		Quarantine measures enforced by	Smallpox vaccination compulsory	Emergency fund available
	By whom	When			
Alberta.....	Local medical health officer.....	Within 24 hours.....	Local health officer.....	No.....	Yes.
British Columbia.....	Local health officer.....	do.....	do.....	Yes.....	Yes.
Manitoba.....	Medical health officer.....	Daily.....	Medical health officer.....	No ¹	Yes.
New Brunswick.....	Secretary of subhealth district.....	Weekly.....	Subdistrict health officer.....	Yes.....	Yes.
Nova Scotia.....	Medical health officer.....	do.....	Local health officer.....	Yes.....	Yes.
Ontario.....	Local health officer.....	do.....	do.....	No ¹	Yes.
Quebec.....	do.....	At once.....	do.....	Yes.....	Yes.
Saskatchewan.....	do.....	Weekly.....	do.....	No ¹	Yes.

¹ Made compulsory at discretion of the department of public health.

VENEREAL-DISEASE CONTROL

Toward the end of 1919 an agreement was made between the Federal and the provincial governments whereby a sum was to be apportioned on a population basis to the Provinces for venereal-disease control with the understanding that each Province would contribute an amount equal to that received from the Federal Government. Clinics have been established, free treatments have been provided, and educational campaigns have been carried on by the Provinces since that date.

ORGANIZATION

Table 269 gives the name of the division in charge of venereal-disease control for each Province, the total appropriation, the number of persons employed, and the salary of the director in 1925 and 1930.

It will be noted that five of the Provinces have a separate division in the health department for this activity.

TABLE 269.—*Venereal-disease control, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for venereal diseases		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Social-hygiene branch.....	\$19,920	\$17,870	1 5	7	\$3,200	\$3,200
British Columbia..	Central administration.....	36,624	(²)	1 11	(²)	(³)	(³)
Manitoba.....	Division of venereal-disease prevention.	7,706	20,500	6	1 6	1,800	3,000
New Brunswick.....	Division of venereal-disease control.	14,523	10,000	1 12	1 14	1,750	1,500
Nova Scotia.....	Under minister of public works and mines.	-----	-----	-----	-----	-----	-----
Ontario.....	Division of preventable diseases.....	-----	-----	-----	-----	-----	-----
Quebec.....	Division of venereal diseases.....	72,000	72,000	3	3	2,000	2,000
Saskatchewan.....	do.....	28,102	30,000	1 16	1 16	2,100	(⁴)

¹ Officials included whose time is devoted to more than 1 activity.

² Under central administration.

³ The executive officer is the director.

⁴ Part-time official.

In comparing the amounts appropriated for venereal-disease control in 1925 with the amounts for 1930 it will be noticed that Manitoba and Saskatchewan increased their budgets for this activity, while Alberta and New Brunswick have decreased their amounts.

The percentage of the total provincial legislative appropriation expended for venereal-disease control has determined the order in which the Provinces are listed in Table 270.

TABLE 270.—*Percentage of the provincial legislative appropriation devoted to venereal-disease control, 1930*¹

Province	Provincial legislative appropriation for health work ²	Provincial legislative appropriation for venereal-disease control	Percentage
Manitoba.....	\$228,544	\$20,500	9.0
Alberta.....	201,751	17,870	8.9
Saskatchewan.....	242,745	21,327	8.8
Quebec.....	564,888	49,000	8.7
New Brunswick.....	157,440	10,000	6.4

¹ Under central administration in British Columbia; under department of public works and mines in Nova Scotia; under division of preventable diseases in Ontario.

² Exclusive of tuberculosis-sanatoria and hospital funds.

VENEREAL-DISEASE CLINICS

Table 271 gives the number of clinics conducted by the provincial health department in 1929 and the number of treatments administered through these clinics and states whether the treatments are administered free of charge.

All the Provinces engage in this activity, and treatments are furnished free to indigent cases throughout the Dominion.

In Ontario special grants of 50 cents per treatment are made by the health department toward the support of venereal-disease clinics.

Of the 24 clinics in this Province 18 are directly controlled by the health department, and 6 clinics, located in reformatory institutions, are supervised by the health department.

TABLE 271.—*Venereal-disease clinics, 1929*

Province	Number of clinics conducted by the health department	Treatments administered		Furnished free
		Salvar-san	Others	
Alberta.....	5	487	1,006	Yes.
British Columbia.....	2	7,202	39,000	Yes.
Manitoba.....	8	44,676		Yes.
New Brunswick.....	11	14,985		Yes.
Nova Scotia.....	5	(¹)	(¹)	Yes.
Ontario.....	24	21,136	90,478	Yes.
Quebec.....	70	66,268	113,875	Yes.
Saskatchewan.....	6	33,743		Yes.

¹ Data not available.

TUBERCULOSIS CONTROL

It will be noted in Table 272 that five of the Provinces have a separate division in the health department for the control of tuberculosis, and that Ontario places this responsibility with the division of preventable diseases. Tuberculosis-control activities are carried on by the sanatorium board in Manitoba and by the Saskatchewan Anti-Tuberculosis League.

In British Columbia hospital inspection is also a function of the tuberculosis division. Every hospital coming under the hospital act receives a per diem per capita grant whether the patient pays or not. Private hospitals are supervised but not subsidized.

TABLE 272.—*Tuberculosis control, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for tuberculosis control		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Tuberculosis-control branch.....	\$182,000	\$220,822	20	98	\$4,500	\$5,500
British Columbia.....	Division of tuberculosis control and hospital inspection.....	6,500	6,540	1	2	4,000	4,240
Manitoba.....	Tuberculosis sanatorium board.....						
New Brunswick.....	Division of tuberculosis control.....	6,050	12,500	1	2	2,479	3,500
Nova Scotia.....	do.....	4,520	(¹)	1	(¹)	3,000	(¹)
Ontario.....	Division of preventive diseases.....						
Quebec.....	Division of tuberculosis and child hygiene.....	100,000	75,000	31	31	(²)	(²)
Saskatchewan.....	No activities.....						

¹ Data not available.

² Officials included whose time is devoted to more than one activity.

³ The executive officer is the director.

In comparing the 1930 amounts appropriated for tuberculosis control with those for 1925, it will be noted that Alberta and New Brunswick have considerably increased the amount of their budgets.

DISPENSARIES AND CLINICS

Tuberculosis dispensaries or clinics are conducted by the health departments in six Provinces—Alberta, British Columbia, New Brunswick, Nova Scotia, Ontario, and Quebec. (See Table 273.)

The traveling-chest clinics maintained by the Ontario health department are conducted by specialists and nurses and equipped with portable X-ray machines. The farthest outposts are reached in this manner. In addition, 17 dispensaries are maintained by municipalities.

TABLE 273.—*Tuberculosis dispensaries and clinics, 1929*

Province	Number of clinics or dispensaries	Number of patients	Province	Number of clinics or dispensaries	Number of patients
Alberta.....	2	354	Nova Scotia.....	125	1,404
British Columbia.....	¹ 1	991	Ontario.....	29	1,549
Manitoba.....	None.	None.	Quebec.....	19	30,000
New Brunswick.....	2	(²)	Saskatchewan.....	³ None.	³ None.

¹ A traveling clinic.

² No record.

³ Conducted by the Anti-Tuberculosis League. A total of 1,157 patients treated.

TUBERCULOSIS SANATORIA

The central Alberta sanatorium is the only provincial tuberculosis sanatorium conducted by a provincial health department. In addition, a fraction of the capacity of all general hospitals in Alberta is reserved for tuberculosis cases. Each municipality pays \$1.50 per day for each patient and the health department bears the balance of the cost.

A tuberculosis sanatorium is operated by the provincial secretary's department in British Columbia. The general hospitals also set aside 10 per cent of their bed capacity for the care of tuberculous patients and the provincial government subsidizes them at the rate of \$1 per day per patient.

In Manitoba there are two hospitals devoted to the care of tuberculous patients. One of these is maintained by the Winnipeg city hospitals commission and the other is under the control of the sanatorium board.

The New Brunswick Sanatorium is conducted by a separate provincial board. In addition the St. John County Hospital is maintained by the city and county of that name and is subsidized at the rate of \$1 per day per patient by the provincial government. If the

patient has no domicile in the Province, the provincial department of health pays \$2.71 per day for each patient maintained at this hospital.

The provincial tuberculosis sanatorium in Nova Scotia is conducted by the minister of works and mines.

In Ontario six sanatoria are conducted by private organizations. In addition there are four county sanatoria. The provincial health department provides for the maintenance in these sanatoria of indigents from unorganized territory. The provincial secretary's department makes initial grants to sanatoria toward the site and maintenance grants of 75 cents per day for each patient other than private patients.

The tuberculosis sanatoria in Quebec are administered by private corporations and the provincial government.

The Anti-Tuberculosis Association operates the three tuberculosis sanatoria owned by the Saskatchewan provincial government. Through a grant of \$1 per day the government contributes approximately one-third of the cost. One-tenth of the bed capacity of the general hospitals is set aside for tuberculosis patients.

TABLE 274.—*Tuberculosis sanatoria, 1929*

Province	Provincial sanatoria				County sanatoria	
	Conducted by the health department		Not conducted by the health department		Number	Beds
	Number	Beds	Number	Beds		
Alberta.....	1	210				
British Columbia.....			1	346		
Manitoba.....			2	425		
New Brunswick.....			1	140	1	200
Nova Scotia.....			1	300	1	75
Ontario.....			6	1,822	4	326
Quebec.....			6	1,400		
Saskatchewan.....			3	647		

¹ The general hospitals also set aside beds for tuberculous patients.

SPECIAL DIVISION

Quebec maintains a division of child family placement for the purpose of placing in country homes children exposed to tuberculosis.

SPECIAL ACTIVITIES

In 1930 a cancer commission was created by the Saskatchewan Legislature. Cancer clinics are to be established and radium is to be supplied by the government for the treatment of the disease.

VITAL STATISTICS

ORGANIZATION

Vital statistics became a function of the health departments of Nova Scotia and Ontario in 1925, thus making the provincial department of health responsible for the registration of vital statistics in all the Provinces.

Table 275 gives the name of the division in charge of vital statistics in each Province, the total amount of the appropriation, the number of persons employed, and the salary of the director for 1925 and 1930.

TABLE 275.—*Vital statistics, 1930*

Province	Division in charge in 1930	Total appropriation for vital statistics		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Vital statistics branch.....	\$22,725	\$29,541	13	18	\$2,400	\$2,500
British Columbia.....	Division of vital statistics.....	8,700	12,212	1	6	1,680	2,020
Manitoba.....	do.....	(²)	14,700	4	6	(³)	3,000
New Brunswick.....	do.....	2,475	(²)	1	2	(⁴)	(⁴)
Nova Scotia.....	do.....	11,048	(⁵)	1	10	(⁵)	(⁵)
Ontario.....	do.....	⁶ 32,925	63,000	42	37	2,400	2,500
Quebec.....	do.....	(⁷)	(⁷)	9	13	3,500	3,500
Saskatchewan.....	do.....	33,138	35,000	14	18	2,000	2,200

¹ Officials included whose time is devoted to more than 1 activity.

² Included under central administration.

³ The secretary of the provincial board of health is the registrar. Salary not given.

⁴ The executive officer is the registrar.

⁵ Data not available.

⁶ For the last 6 months of 1925.

⁷ Appropriation voted in a lump sum.

In Alberta, British Columbia, Manitoba, Ontario, Quebec, and Saskatchewan, vital statistics are in charge of a deputy registrar general or full-time registrar of vital statistics. This activity is intrusted to the executive health officer in New Brunswick and Nova Scotia.

The arithmetic average for the salary of the registrar is \$2,620 as based on the 1930 amounts for six provinces.

The percentage of the total provincial health appropriation expended for vital statistics for each of five Provinces had determined the order in which the Provinces are arranged in Table 276.

TABLE 276.—*Provinces arranged according to percentage of total legislative appropriation allotted to vital statistics, 1930*¹

Province	Total legislative appropriation	Provincial appropriation for vital statistics	Percentage
Alberta.....	\$201,751	\$29,541	14.6
Saskatchewan.....	242,745	35,000	14.4
British Columbia.....	125,346	12,212	9.7
Ontario.....	807,450	63,000	7.8
Manitoba.....	228,544	14,700	6.4

¹ Under central administration, New Brunswick; data not available, Nova Scotia; appropriation voted in a lump sum, Quebec.

Table 277 gives the primary registration districts in each Province; indicates the method of choosing the local registrars; and states whether the local registrars receive a fee or a salary, how much they are paid per record, and by whom.

TABLE 277.—*Vital statistics, 1930*

Province	Primary registration district	Local registrar appointed by—	Registrar paid		
			Fee	Per record	By whom
Alberta.....	City, town, village, school district.	Lieutenant governor in council.	Yes...	\$0.25	Provincial government.
British Columbia.....	Mining districts...	Provincial government...	(1)	(1)	(1).
Manitoba.....	City, town, village.	Municipal officers.....	Yes...	1.00	Municipality or provincial government.
New Brunswick.....	City, incorporated town, village.	Subdistrict boards of health.	(2)	(2)	Subdistrict boards of health.
Nova Scotia.....	County subdivision.	Lieutenant governor in council.	Yes...	.40	Municipality.
Ontario.....	City, town, township, village.	Municipal council or health department.	(3)	.25	(3).
Quebec.....	Parish.....	Ministers of worship.....	Yes...	.15	Bureau of health.
Saskatchewan.....	Municipality.....	Municipal council or lieutenant governor in council.	Yes...	.25	Provincial government.

¹ Government employees paid a salary, otherwise 25 cents per record by the provincial board of health.

² Paid a salary ranging from \$10 to \$150 per year.

³ According to method of appointment.

REGISTRATION DISTRICTS

The registration districts in the various Provinces are the cities, towns, and villages, except in British Columbia and Quebec. The registration district in the former is the mining district and in the latter the church parish.

LOCAL REGISTRARS

The local registrars are chosen by the municipal officers in Manitoba, by the subdistrict boards of health in New Brunswick, by the lieutenant governor in council in Alberta and Nova Scotia, by the municipal council or the department of health in Ontario, and by the municipal council or lieutenant governor in council in Saskatchewan. In British Columbia a government official is appointed as local registrar pursuant to the civil service act, and in a few municipalities local officials, such as postmasters, serve as registrars. In Quebec the Roman Catholic priests are the local registrars in their respective parishes, whereas in other parishes the ministers or rabbis collect the certificates.

FEES AND SALARIES

The local registrars receive fees in each Province except British Columbia and Ontario, where registrars are paid a salary or a fee according to the method of appointment, and in New Brunswick, where the registrars are paid a regular salary. The fee is 15 cents in

Quebec; 25 cents in Alberta, Ontario, and Saskatchewan; 40 cents in Nova Scotia; and \$1 in Manitoba. In British Columbia the government employees are paid a regular salary, but local officials serving as registrars receive a fee of 25 cents or a monthly allowance of about \$15. In New Brunswick the local registrars receive a fixed yearly salary.

These fees are paid by the provincial government in Alberta and Saskatchewan, by the provincial government or the department of health in British Columbia, by the municipality or provincial government in Manitoba, by the municipality in Nova Scotia, by the municipality or department of health in Ontario, and by the bureau of health in Quebec. In New Brunswick the subdistrict boards of health pay the salary of the local registrar.

REGISTRATION OF DEATHS AND BIRTHS

Deaths.—Table 278 gives for 1929 the percentage of completeness of the reporting of deaths for each Province, and the percentage of the total number of deaths reported by physicians, undertakers, and others. It also indicates when death reports must be submitted to the local registrar and to the provincial registrar, and whether the standard certificate has been adopted.

It will be noted that the percentage of completeness of the reporting of deaths for each Province falls between 95 and 100 per cent.

Deaths must be reported to the local registrar within 24 hours in Alberta and Ontario; before burial in British Columbia, Quebec, and Saskatchewan; and at once in Manitoba and Nova Scotia. In New Brunswick, deaths occurring in cities and towns must be reported before burial, while those occurring in rural districts must be reported within 30 days to the local registrar. Deaths are reported to the provincial registrar once each month in all the Provinces.

The Federal Government supplies blanks for the reporting of vital statistics in Canada except in Nova Scotia, where the provincial health department supplies the blanks. The franking privilege is accorded to each Province.

TABLE 278.—*Registration of deaths, 1929*

Province	Per cent completeness of reporting	Percentage of total deaths reported by—			Report of deaths due—		Standard certificate used
		Physicians	Undertakers	Others	Local registrar	Provincial registrar	
Alberta.....	100	95	0	5	Within 24 hours.....	Monthly.....	Yes.
British Columbia.....	98	90		10	Before burial.....	do.....	Yes.
Manitoba.....	99	100	0	0	At once.....	By the 7th.....	Yes.
New Brunswick.....	95-98	75	25	0	(¹).....	By the 2d.....	Yes.
Nova Scotia.....	90	98		2	At once.....	By the 7th.....	Yes.
Ontario.....	99	90		10	Within 24 hours.....	Monthly.....	Yes.
Quebec.....	98	90	0	10	Before burial.....	do.....	Yes.
Saskatchewan.....	99	0	52	48	do.....	do.....	Yes.

¹ Cities and towns before burial, rural districts within 30 days.

Births.—Table 279 gives for 1929 the percentage of completeness of the reporting of births for each Province and the percentage of the total number of births reported by physicians, midwives, and others. It also indicates when birth reports must be submitted to the local registrar and to the provincial registrar, and states whether or not the Provinces report stillbirths as births and deaths.

It will be noted that the percentage of completeness in reporting births ranges from 85 to 99 per cent in the various Provinces. In Alberta, British Columbia, Quebec, and Saskatchewan the physicians and hospitals send a notice of a birth to the health department. The responsibility rests with the parents to make out and sign the birth certificate and send it to the local registrar. Births must be reported to the local registrar within 60 days in British Columbia, within 30 days in Alberta and Ontario, within 15 days in Saskatchewan, within 10 days in Manitoba and New Brunswick, within 8 days in Quebec, and within 24 hours in Nova Scotia. Births must be reported to the provincial registrar once a month in each Province.

Stillbirths.—Stillbirths are reported as births and deaths in all the Provinces. In Ontario they are reported as births and deaths, but are not counted statistically.

TABLE 279.—Registration of births, 1929

Province	Percentage completeness of reporting	Percentage of total births reported by—			Report of births due—		Still births reported as births and deaths
		Physicians	Midwives	Others	Local registrar	Provincial registrar	
Alberta.....	97	0	0	1 100	Within 30 days.....	Monthly.....	Yes.
British Columbia.....	85	0	0	1 100	Within 60 days.....	do.....	Yes.
Manitoba.....	99	(²)	(²)	(²)	Within 10 days.....	By the 7th.....	Yes.
New Brunswick.....	95	75	25	0	do.....	By the 2d.....	Yes.
Nova Scotia.....	85	85	0	10	Within 24 hours.....	By the 7th.....	Yes.
Ontario.....	90-95	75	0	25	Within 30 days.....	Monthly.....	Yes.
Quebec.....	99	5	0	1 95	Within 8 days.....	do.....	Yes.
Saskatchewan.....	99	0	0	1 100	Within 15 days.....	do.....	Yes.

¹ Parents.² Data not available.

VITAL STATISTICS LAWS

The standard certificate and the international list of the causes of death have been adopted for use in each Province.

UNLAWFUL DEATH

The coroner system is used throughout Canada as the procedure in case death appears to occur from unnatural causes, except in Nova Scotia, where the attorney general is notified.

BURIAL PERMITS

Burial permits are required in each Province. They are issued by the local registrars, except in Ontario, where they are issued by the provincial registrar, and in Quebec, where they are issued by the municipal officer.

LICENSING

Table 280 gives the method adopted in each Province for licensing physicians and undertakers. Midwives are not licensed except in Halifax, Nova Scotia, where they are licensed by the provincial medical board.

Physicians are licensed by the College of Physicians and Surgeons in all the Provinces except Nova Scotia, where they are licensed by the provincial medical board.

Undertakers are licensed in Manitoba, New Brunswick, Ontario, and Saskatchewan by the provincial department of health, and in Nova Scotia by the provincial undertakers' association.

TABLE 280.—*Licensing of physicians and undertakers*

Province	Physicians		Undertakers	
	Licensed	By whom	Licensed	By whom
Alberta.....	Yes.....	College of Physicians and Surgeons.	No.....	
British Columbia.....	Yes.....	do.....	No.....	
Manitoba.....	Yes.....	do.....	Yes.....	Department of health and public welfare.
New Brunswick.....	Yes.....	do.....	Yes.....	Embalmers' examining board of the health department.
Nova Scotia.....	Yes.....	Provincial medical board.....	Yes.....	Provincial undertakers' association.
Ontario.....	Yes.....	College of Physicians and Surgeons.	Yes.....	Provincial health department.
Quebec.....	Yes.....	do.....	No.....	
Saskatchewan.....	Yes.....	do.....	Yes.....	Department of public health.

PUBLIC-HEALTH LABORATORIES

ORGANIZATION

The eight Provinces enumerated in Table 281 have made provisions for public-health laboratory service. The table gives for each Province the name of the division, the amount of its appropriation, the number of persons employed, and the salary of the director for 1925 and 1930.

The arithmetic average for the salary of a laboratory director is \$4,308 as based on the 1930 amounts for six Provinces.

TABLE 281.—*Public-health laboratory service, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for public-health laboratories		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Provincial laboratory.....	\$34,000	\$36,000	15	13	\$4,500	\$4,500
British Columbia.....	Special subsidy for 4 laboratories.....	11,550	10,200	(¹)	(¹)	(¹)	(¹)
Manitoba.....	Provincial laboratory.....	(²)	18,620	3	7	4,500	4,600
New Brunswick.....	Department of health laboratory.....	16,716	24,540	7	7	5,000	5,000
Nova Scotia.....	Provincial laboratory.....	10,000	(¹)	4	5	3,500	(¹)
Ontario.....	Division of laboratories.....	87,959					
	Central laboratory.....		66,550	12	26	4,000	4,000
	Branch laboratories.....		42,275	16	12	³ 14,750	⁴ 11,850
Quebec.....	Provincial laboratory.....	(¹)	(¹)	⁵ 9	⁵ 13	3,000	3,500
Saskatchewan.....	Division of laboratories.....	16,760	20,500	⁵ 9	8	3,800	4,250

¹ Not given.

² Included under central administration.

³ Total salaries for 6 directors.

⁴ Total salaries for 4 directors.

⁵ Officials included whose time is devoted to more than 1 activity.

The percentage of the total provincial health appropriation expended for laboratory service has determined the order in which the Provinces are listed in Table 282.

TABLE 282.—*Provinces arranged according to the percentage of the total legislative appropriation allotted to laboratory service, 1930*¹

Province	Total provincial appropriation for health work	Provincial appropriation for laboratory service	Per cent
Alberta.....	\$201,751	\$36,000	17.8
New Brunswick.....	157,440	24,540	15.6
Ontario.....	807,450	² 108,825	13.5
Saskatchewan.....	242,745	20,500	8.4
Manitoba.....	228,544	18,620	8.1

¹ Special subsidy included under central administration in British Columbia; data not available for Nova Scotia and Quebec.

² Main and branch laboratories.

The laboratory in Alberta is located in the medical school of the university and conducted by the university, the appropriation being made through the board of health. In British Columbia the work is conducted on a semicontractual or cooperative basis with four public hospitals—at Kamloops, Kelowna, Vancouver, and Victoria—and the activity is not under the direct supervision of the medical health officer. The Manitoba laboratory is located in the medical school at Winnipeg and the work is directed by the professor of bacteriology. The New Brunswick laboratory is housed in the general public hospital at St. John but is controlled and directed by the provincial health department. In Nova Scotia the laboratory is a subdivision of the health department but is housed in the pathology building located on the campus of Dalhousie Medical School. In Ontario the division of laboratories is a branch of the provincial health department. The central laboratory is housed in the health department building. The Quebec laboratory is financed by the provincial department of health but is located at the University of Montreal. The laboratory at Saskatchewan is a subdivision of the provincial health department and is located in the parliament building at Regina as is also the provincial health department.

BRANCH LABORATORIES

There are three branch laboratories financed by the department of public health in Alberta. In Ontario there are seven branch laboratories, two of which are conducted by Western and Queen's Universities, respectively, the health department giving an annual grant of \$2,100 to the latter. The remaining five laboratories are financed by a special agreement with the local authorities, the health department paying the salaries and the cost of equipment.

SPECIAL LABORATORY SERVICE

Only the provincial health departments of Ontario and Quebec maintain special laboratories. Ontario conducts a laboratory for the investigation of problems associated with industrial hygiene, and a water and sewage experimental station in the division of sanitary engineering. In the central laboratory at Quebec a chemical engineering and food laboratory is conducted by a special officer on the staff of the health department.

SCOPE OF THE DIAGNOSTIC LABORATORY SERVICE

The diagnostic activities of the provincial laboratories for 1929 is tabulated by Provinces and by subjects in Table 283. With the exception of Nova Scotia for which information is not available, it will be noted that all the health department laboratories make the following examinations: Wassermann tests (blood and spinal fluid), gonococcus smears, Widal examinations, tuberculosis sputa examinations, milk and water samples (bacterial).

TABLE 283.—*Diagnostic activities during 1929*

NUMBER OF EXAMINATIONS MADE

Province	Diphtheria		Typhoid				Venereal diseases					Tuberculosis sputa
	Examinations	Virulence	Blood	Feces	Urine	Widal	Gonococcus	Wassermann		Kahn tests	Colloidal gold	
								Blood tests	Spinal fluid			
Alberta.....	1, 105	110	226	(1)	(1)	226	2, 655	12, 264	(2)	(2)	(2)	677
British Columbia.....	35, 647	230	43	(1)	(1)	1, 664	7, 097	14, 954	600	6, 425	(2)	2, 580
Manitoba.....	4, 513	12	72	10	10	222	950	15, 013	310	(2)	(2)	341
New Brunswick.....	(2)	(2)	(1)	112	(2)	366	554	3, 087		2, 943	(2)	544
Nova Scotia ⁶												
Ontario.....	34, 816	678	4, 912	492	(1)	(1)	14, 104	47, 023	3, 074	43, 949	1, 537	10, 262
Quebec.....	486	(2)	(2)	72	15	856	8, 328	30, 680	503	(2)	441	2, 467
Saskatchewan.....	4, 180	(2)	10	10	10	521	4, 439	9, 224	100	(2)	(2)	685

Province	Rabies, number of heads	Feces, number of examinations	Malaria blood smears	Urinalyses	Blood counts	Water analyses		Milk analyses		Miscellaneous	Total number
						Bacterial	Chemical	Bacterial	Chemical		
Alberta.....	(2)	(1)	(2)	(1)	(1)	1, 475	717	1, 029	97	1, 800	40, 054
British Columbia.....	(1)	325	25	(2)	(2)	599		2, 416		52, 414	124, 919
Manitoba.....	2	21	6	3, 360	84	598	(2)	556	556	946	27, 026
New Brunswick.....	(2)	112	(2)	2, 756	(1)	192	(2)	260	(2)	14, 633	17, 953
Nova Scotia ⁶											12, 198
Ontario.....	65	(2)	(2)	(2)	(2)	19, 399	129	8, 347	6, 609	6, 536	208, 772
Quebec.....	45	76	(2)	53	(2)	11, 628	2, 325	2, 135	2, 114	6, 614	67, 409
Saskatchewan.....	3	100	(2)	2, 062	210	1, 224	1, 224	150	200	4, 501	28, 853

¹ Not reported.² Included under Wassermann blood tests.³ Included under miscellaneous.⁴ None.⁵ Not specified.⁶ Reported total number only.

FEES FOR EXAMINATIONS

No fees are charged in the laboratories of any of the Provinces for routine public-health work. In New Brunswick and Quebec charges are made for special examinations such as urinalyses, blood chemistry, pathological sections, and animal inoculations. In addition, the sub-district board of health of St. John City and County pays the New Brunswick laboratory \$1,000 a year for milk and water analyses. Also the provincial hospital, St. John County Hospital, and the general public hospital pay sums of \$1,000 yearly for all work done by the New Brunswick laboratory. Fees collected in this way are allocated to the laboratory.

MANUFACTURE OR PURCHASE OF BIOLOGICAL PRODUCTS AND THEIR DISTRIBUTION

Table 284 indicates for each Province whether or not biological products are purchased or manufactured and records the amounts issued during 1929. It will be noted that the Ontario laboratory manufactures typhoid vaccine and silver-nitrate ampules, and the Alberta laboratory manufactures typhoid vaccine. Otherwise biologicals are purchased by, and distributed free of charge in, all the Provinces. They are issued by the division of communicable-disease control in Alberta, Manitoba, Ontario, and Saskatchewan; by the laboratories in New Brunswick; and by the central office in British Columbia, Nova Scotia, and Quebec.

All the Provinces distribute diphtheria antitoxin, toxin-antitoxin, typhoid and smallpox vaccine.

TABLE 284.—*Manufacture or purchase of biological products and their distribution, 1929*

Province	Diphtheria			Smallpox vaccine	Typhoid vaccine	Rabies treatments	Silver-nitrate ampules
	Antitoxin	Toxin-antitoxin	Schick outfits				
Alberta.....	17,406,234	P ¹ 46,836	P 1,900	P 25,530	P 6,250	M (2)	(2) ---
British Columbia..	99,360	P 1,212	P (2)	P 16,171	P 347	P (2)	(2) P
Manitoba.....	10,769,000	P 5,911	P 2,950	P 28,055	P 7,953	P (2)	1,022 P
New Brunswick.....	9,880	P (2)	P 525	P 12,479	P 1,590	P (2)	550 P
Nova Scotia ²	-----	-----	-----	-----	-----	-----	-----
Ontario.....	335,598	P 85,343	P 2,668	P 157,953	P 80,050	M 190	P 45,556
Quebec.....	8,306	P 136	P (2)	P 18,247	P 1,046	P (2)	396 M
Saskatchewan.....	86,582	P 733,310	P 75,525	P 759,940	P 75,042	P (2)	(2) P

¹ The letters M and P indicate whether or not the biological was manufactured or purchased.

² Not reported or no record.

³ Not supplied.

⁴ Toxoid.

⁵ Four packages.

⁶ Typhoid and paratyphoid vaccine.

⁷ Persons.

⁸ Ampules.

RESEARCH

During 1929, the provincial bacteriologist in Manitoba carried on studies in connection with the treatment of chronic rheumatoid arthritis and chronic colitis by the use of autogenous serums. The Ontario provincial laboratory investigated food poisoning, focal infection, agglutination, and the comparison of reductase with agar plate for bacterial counts on milk. In Saskatchewan the laboratory staff carried on work in connection with undulant fever.

SANITARY ENGINEERING

ORGANIZATION

Table 285 gives the name of the division of the provincial health department in charge of sanitary engineering activities, the amount of the appropriation, the number of persons employed, and the salary of the director for 1925 and 1930.

According to this table it will be noted that Alberta, British Columbia, Ontario, Quebec, and Saskatchewan maintain a separate division for this activity and employ a full-time director to supervise the work. In New Brunswick and Nova Scotia the chief medical officer and provincial health officer respectively direct the work. Sanitary engineering activities are a function of the division of communicable diseases in Manitoba. In Saskatchewan the Province is divided into eight sanitary districts with a sanitary officer in charge of each district.

The arithmetic average for the salary of a sanitary engineer is \$3,632 as based on the 1930 amounts for five Provinces.

TABLE 285.—*Sanitary engineering, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for sanitary engineering		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Sanitary engineering branch.....	\$18,176	\$22,600	5	5	\$3,600	\$3,600
British Columbia.....	Division of sanitation.....	6,446	7,410	1	1	2,400	2,760
Manitoba.....	Division of communicable diseases.....						
New Brunswick.....	Under subdistricts of health.....						
Nova Scotia.....	Division of central administration.....						
Ontario.....	Division of sanitary engineering.....	40,427	48,700	11	13	3,800	4,000
Quebec.....	do.....	(1)	(1)	4	4	4,000	4,000
Saskatchewan.....	Division of sanitation.....	(2)	(2)	12	10	3,600	3,800

¹ Appropriation voted in a lump sum.

² Included in appropriation for public health nursing, sanitation, and disease prevention.

ACTIVITIES

The scope of engineering activities differs considerably in the eight Provinces. Table 286 indicates whether or not the provincial health departments have jurisdiction over public water supplies, sewerage systems, bottled waters, ice industry, and the sanitation of camps,

swimming pools, and roadside water supplies. It lists also when public water supplies are analyzed and purification plants are inspected.

TABLE 286.—*Sanitary engineering activities*

Province	Provincial department of health control through legislation							Water supplies analyzed	Purification plants inspected
	Water supplies	Bottled waters	Sewerage systems	Ice industry	Camp grounds	Swimming pools	Roadside water supplies		
Alberta.....	Yes...	Yes...	Yes...	Yes...	Yes...	Yes...	Yes...	Monthly.....	Annually.
British Columbia.....	Yes...	Yes...	Yes...	Yes...	Yes...	Yes...	Yes...	On request...	None.
Manitoba.....	Yes...	No...	Yes...	Yes...	Yes...	No...	No...	(1)	(1)
New Brunswick.....	Yes...	Yes...	Yes...	Yes...	Yes...	No...	Yes...	Irregularly...	Irregularly.
Nova Scotia.....	Yes...	(1)	Yes...	Yes...	Yes...	No ² ...	No ² ...	(1)	Do.
Ontario.....	Yes...	Yes...	Yes...	Yes...	Yes...	Yes...	No...	Weekly.....	As necessary.
Quebec.....	Yes...	No...	Yes...	Yes...	No...	No...	No...	(1)	(1)
Saskatchewan.....	Yes...	No...	Yes...	Yes...	Yes...	No...	No...	Irregularly...	Irregularly.

¹ Not stated.² Under contemplation.³ Weekly or daily.

PUBLIC WATER SUPPLIES AND SEWERAGE SYSTEMS

The chief activity of the various divisions of sanitary engineering is the supervision of municipal water supplies. Plans for the installation, alteration, or extension of public water supplies and sewage-disposal systems must be submitted for approval to each of the provincial health departments.

The provincial departments of health in Alberta, British Columbia, New Brunswick, and Ontario have control of bottled waters as well as public water supplies.

ICE INDUSTRY

In each of the Provinces permits are required for permission to cut ice, and regulations have been passed that ice must be taken from a source which is free from pollution.

CAMP SANITATION

All the Provinces except Quebec have passed rules governing the sanitation of tourist and summer camp grounds.

SWIMMING POOLS

Ontario requires chlorination of waters used for swimming pools. Alberta and British Columbia have passed regulations concerning swimming pools, and Nova Scotia had such legislation under consideration in 1930.

ROADSIDE WATER SUPPLIES

Alberta, British Columbia, and New Brunswick have specific regulations governing roadside water supplies. Nova Scotia was forming such rules in 1930.

SANITARY-ENGINEERING LABORATORY

The division of sanitary engineering in Ontario operates a permanent water and sewage experimental station where investigations and research work are conducted.

MILK SUPPLIES

In Alberta, British Columbia, and Saskatchewan the sanitary inspector supervises the control of milk supplies. In Quebec pasteurization plants are under the control of the division of sanitary engineering.

MISCELLANEOUS ACTIVITIES

In addition to the usual activities, the division of sanitary engineering in Ontario has been conducting sanitary surveys in various municipalities since 1920. When these surveys are completed a report for recommendations and improvements is forwarded to the respective municipalities. This has resulted in the improvement of municipal sanitation.

The division of sanitation in Saskatchewan has supervision over the organization and construction of union hospitals. It also prepares sketches and technical details of the proposed buildings.

PUBLIC-HEALTH NURSING AND CHILD WELFARE

ORGANIZATION

In all the Provinces of Canada public-health nursing and child-welfare activities are combined under one division. Table 287 gives the name of the division in charge of the work, the amount of the appropriation, the number of persons employed, and the salary of the director for 1925 and 1930.

TABLE 287.—*Public-health nursing and child welfare, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for the division		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Public-health nursing branch.....	\$37,650	\$51,150	1 17	1 21	\$2,200	\$2,300
British Columbia.....	Central administration.....	45,000	(²)	1 27	(²)	(³)	(³)
Manitoba.....	Division of communicable diseases.....	49,406	104,210	32	41	2,000	2,300
New Brunswick.....	Division of public-health nursing service.....	4,888	12,850	1	4	1,669	1,800
Nova Scotia.....	Division of public health-nursing service and child welfare.....	11,291	(⁴)	6	4	1,800	(⁴)
Ontario.....	Division of child hygiene.....	77,828	76,150	30	22	4,000	4,400
Quebec.....	Division of tuberculosis and child welfare.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Saskatchewan.....	Division of nursing services.....	(⁶)	(⁶)	6	17	4,000	2,520

¹ Officials included whose time is devoted to more than 1 activity.

² Under central administration.

³ Executive officer is the director.

⁴ Data not available.

⁵ Included with division of tuberculosis control. (See Table 272, p. 691)

⁶ Included with appropriation for public health nursing, sanitation, and disease prevention.

The arithmetic average for the salary of the director of public-health nursing and child hygiene is \$2,664 as based on the 1930 amounts for five provinces.

PRENATAL WORK

Prenatal work is carried on to some extent in Alberta, British Columbia, and Quebec through permanent clinics established and maintained by the health department. In the other Provinces the work is carried on by the local health departments. The Saskatchewan health department grants aid to needy expectant mothers. Ten dollars is given to the mother and \$15 is paid directly to the hospital or attending physician. In 1929, 895 mothers received the benefit of these grants.

MIDWIFERY

Midwives are not licensed and no plan of supervision or instruction has been reported by the provincial departments of health. New Brunswick, however, reports that 15 per cent of the total number of births are reported by midwives. Manitoba and Saskatchewan do not recognize midwives.

LICENSING OF LYING-IN HOSPITALS

The provincial health department of Alberta, Manitoba, and Saskatchewan report the licensing of maternity hospitals. Hospitals coming under the hospital act are licensed by the provincial secretary's department in British Columbia and Ontario.

LICENSING OF ORPHANAGES

Orphanages are licensed by the department of health in Manitoba and Saskatchewan. In British Columbia and Ontario they are licensed by the provincial secretary's department.

OPHTHALMIA NEONATORUM

In 1926 a Federal regulation was passed making measures for the protection of the eyes of the newborn compulsory in all the Provinces.

INFANT AND PRESCHOOL HYGIENE

The examination of infants and preschool children is conducted at 3 permanent and 1 traveling clinic in Alberta, at 2 health centers in British Columbia, at welfare clinics in Manitoba, at 80 children's clinics in Quebec, and at clinics conducted during the summer in Saskatchewan. In Nova Scotia and New Brunswick infant-welfare clinics are held by local authorities, and in Ontario the provincial division of child hygiene holds demonstration clinics on request.

SCHOOL HYGIENE

In British Columbia medical inspection of schools is under the direct supervision of the provincial medical officer. The board of school trustees of every town, city, and district is authorized to appoint school health inspectors who must be registered physicians and are paid by the municipality. In unorganized districts the work is carried on entirely by the provincial board of health.

In New Brunswick the medical inspection of schools is under the direct supervision of the chief medical officer. According to law, each child must be examined yearly or half yearly for communicable diseases, defects, or deformities. There are six medical inspectors who are full-time employees and who hold clinics in various localities throughout the Province. There was an appropriation of \$25,000 for this work in 1930. School children are examined by school physicians in the two largest cities in Alberta and by local physicians or public-health nurses in the rural districts. In Manitoba, 28,305 school children were examined during 1929 through the department of health clinics. In Nova Scotia the medical examination of school children is carried out by the county nurses. In Ontario the provincial department gives an annual grant to those municipalities carrying on approved school health programs on the basis of \$500 for the first and \$100 for each additional school nurse. In Quebec every municipal and school commissioner may authorize the medical examination of school children to be made by the district health officer and school nurses. In Saskatchewan some school-hygiene work is carried on through the school inspection made by the nurses of the health department.

DENTAL HYGIENE

Ontario maintains a division of dental services. The activities of the division are divided into educational efforts and the organization of clinics. Assistance is given through grants ranging from 7½ to 30 per cent of the cost to boards willing to establish a school clinic. Arrangements have been made for traveling dentists throughout the rural districts. The appropriation in 1930 was \$14,000 and the salary of the director was \$4,000.

MENTAL HYGIENE

In Alberta the health department is charged with the administration of the two provincial mental hospitals and the provincial training school for the feeble-minded. In New Brunswick special attention has been paid to mental hygiene. The medical inspectors of schools have completed a mental defective census which shows a total of 1,821 persons. In cities and towns where the number of children affected by mental incapacity amounts to 12 or more a special school

with properly qualified teachers must be provided by the school authorities. The department of health provides one-third of the expenses for the special training of such teachers.

The director and staff physicians of the division of child hygiene in Ontario collaborate with the department of education in giving mental examinations to psychopathic children. Administration in connection with the treatment of mental cases in the mental hospitals was transferred to the Saskatchewan department of public health in 1930.

PUBLIC HEALTH NURSING

As has already been explained, there is no clear-cut distinction between the division of child hygiene and the division of public health nursing in the various provincial health departments. A description of the activities and resources of the different divisions of public health nursing has already been outlined.

SUPERVISION

The supervision of public health nurses is intrusted to a director or superintendent of nurses, who is also the director of the nursing division in Alberta, Manitoba, New Brunswick, Nova Scotia, and Saskatchewan; to the executive officer in British Columbia and Quebec; and to the director of child hygiene in Ontario.

The following tabulation indicates the person in charge of the nurses:

Alberta.....	Superintendent of nurses and director of division.
British Columbia.....	Provincial health officer.
Manitoba.....	Director of public health nurses.
New Brunswick.....	Director of public health nursing service.
Nova Scotia.....	Superintendent of nursing service and director of division.
Ontario.....	Director of the division of child hygiene.
Quebec.....	Director of the bureau of health.
Saskatchewan.....	Director of division of nursing services.

ELIGIBILITY REQUIREMENTS

A summary of the eligibility requirements for the provincial public health nurses is given below:

Alberta.....	Graduate nurse of a recognized hospital and public health training when possible.
British Columbia.....	Graduate registered nurse with one year's course at the university.
Manitoba.....	Graduate registered nurse of a recognized training school.
New Brunswick.....	Registered nurse from a reputable training school and one year's training in public health work.
Nova Scotia.....	Graduate nurse with special training in public health.
Ontario.....	Graduate registered nurse with special public health training.

Quebec..... Graduate registered nurse with special public health training.

Saskatchewan..... Graduate registered nurse with special public health training.

All public-health nurses must be graduate nurses with special training in public health work, and with the exception of Alberta and Nova Scotia, registration is required.

SPECIAL DIVISION

Ontario maintains a division of nurse registration, to set a standard of registration for nurses graduating from various hospitals and to improve living and teaching conditions for nurses. Since 1926 examinations have been held twice a year for applicants. The appropriation for this division in 1930 was \$9,050. The director received a salary of \$2,700 and was assisted by two clerks and two stenographers.

PUBLIC-HEALTH EDUCATION

ORGANIZATION

Only two Provinces, namely, Alberta and Ontario, have a special division of public-health education. The total appropriation, number of persons employed, and salary of director is given in Table 288. Public-health education is in charge of the medical officer of health in British Columbia, New Brunswick, Nova Scotia, Quebec, and Saskatchewan, and in Manitoba it is conducted mainly through the public health nursing department.

TABLE 288.—*Public-health education, 1925 and 1930*

Province	Division in charge in 1930	Total appropriation for public-health education		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Public-health education branch.....		(¹)		2		\$2,000
Ontario.....	Division of public-health education.....	\$21,000	\$35,400	2	4	\$3,800	2,400

¹ Included under other branches.

PUBLICITY

Publicity measures are conducted in Alberta and Ontario by the division of public-health education; in British Columbia by the provincial health officer in cooperation with the Government publicity department; in Manitoba by the public-health nursing service; and in New Brunswick, Nova Scotia, Quebec, and Saskatchewan by the executive officer of the health department.

PRESS SERVICE

The press cooperates with the Alberta, British Columbia, Nova Scotia, and Quebec health departments. Manitoba, New Brunswick, Ontario, and Saskatchewan have no regular press service.

BULLETINS

A health bulletin is published in Alberta, Manitoba, New Brunswick, and Nova Scotia every month, and in Quebec every two months. The remaining three Provinces do not issue a bulletin. Special pamphlets are published in Alberta, British Columbia, Nova Scotia, and Saskatchewan from time to time, while Ontario issues a health almanac yearly.

GRAPHIC MATERIAL

Alberta, Nova Scotia, Ontario, and Saskatchewan own motion-picture machines. All the Provinces except Manitoba own slides and motion-picture films. Saskatchewan owns a complete venereal-disease exhibit, and numerous models and exhibits relating to communicable-disease control, and maintains a division of exhibits and exhibitions.

COOPERATION WITH EDUCATIONAL AUTHORITIES

The health department cooperates with the department of agriculture in conducting organizations known as women's institutes in British Columbia. The educational authorities and health department jointly conduct courses of instruction for normal school students and women's and teachers' institutes in Nova Scotia, Ontario, and Saskatchewan. The provincial departments of health and education cooperate in carrying on their respective programs in Alberta, British Columbia, Manitoba, New Brunswick, and Quebec.

FOOD AND DRUGS

ORGANIZATION

The control of food adulteration and drugs is not a function of the provincial health departments in Canada, it being a special duty of the Federal Government. There are, however, special ordinances concerning the inspection of food in certain Provinces. In Alberta, Quebec, and Saskatchewan the sanitary engineering division has some control over food and drugs. In Manitoba, the inspection of food is a function of the division of communicable diseases. The chief medical officer in New Brunswick supervises food inspection, which is directly controlled by the subdistrict boards of health.

FOOD LABORATORY

In the central laboratory maintained by the Quebec department of health, a chemical engineering and food laboratory is conducted by a special officer of the staff.

ACTIVITIES

Table 289 records for each Province whether or not the provincial health departments require the medical examination of food handlers and the inspection of food, places where food is handled, slaughterhouses, and cold-storage warehouses. In this table is shown also whether or not the provincial health departments enforce the laws concerning shellfish sanitation and milk supplies, the latter including the pasteurization of milk, the tuberculin testing of cattle, the analyses of milk supplies, and the licensing of dairies.

TABLE 289.—Activities concerned with the enforcement of food and drug laws

Province	Enforcement of laws by the provincial department of health				
	Medical examination of food handlers	Prevention of food adulteration	Hotels, bakeries, etc.	Slaughterhouses	Cold-storage warehouses
Alberta.....	Yes.....	No.....	Yes.....	Yes.....	Yes.
British Columbia.....	No.....	No.....	No. ¹	Yes.....	No. ¹
Manitoba.....	No.....	No.....	Yes.....	Yes.....	No.
New Brunswick.....	Yes.....	No.....	Yes.....	Yes.....	Yes.
Nova Scotia.....	No. ¹	No.....	No. ¹	No. ¹	No. ¹
Ontario.....	No.....	No.....	No.....	No.....	No.
Quebec.....	No. ²	No.....	Yes.....	Yes.....	No.
Saskatchewan.....	Yes.....	No.....	Yes.....	Yes.....	No.

Province	Enforcement of laws by the provincial department of health					
	Prevention of pollution of shellfish	Milk supplies	Pasteurization	Tuberculin testing of cattle	Laboratory examination of milk	Inspection of dairies
Alberta.....	Yes.....	Yes.....	No.....	No.....	Yes.....	No. ¹
British Columbia.....	Yes.....	Yes.....	No. ¹	No.....	Yes.....	No. ¹
Manitoba.....	No.....	Yes.....	No.....	No.....	Yes.....	Yes.
New Brunswick.....	No.....	Yes.....	Yes.....	No.....	Yes.....	Yes.
Nova Scotia.....	No.....	No. ¹	No. ¹	No.....	Yes.....	No. ¹
Ontario.....	No.....	No.....	No.....	No.....	No.....	No.
Quebec.....	No.....	No.....	Yes.....	No.....	Yes.....	No.
Saskatchewan.....	No.....	Yes.....	Yes.....	Yes.....	No.....	Yes.

¹ Under local boards of health.² Except persons handling milk.

MILK SUPPLIES

An important activity of the division of food inspection in Manitoba is the inspection of plants producing certified milk. This work includes the bacterial analysis of samples of milk and the inspection of dairies.

In New Brunswick the department of health and the subdistrict boards of health jointly control the milk supplies and dairies of the Province. Samples of milk and cream are examined by the former and dairies are licensed by the latter.

The sanitary engineering divisions of the health department have control of milk supplies in Alberta, British Columbia, Quebec, and Saskatchewan.

OTHER DIVISIONS

There are a few divisions which can not be classified under the heads already discussed.

Alberta maintains a division for the purpose of administering the municipal hospital act. The Province is divided into districts and a scheme has been adopted by the people of each district whereby an amount of money is raised through taxation for hospital purposes.

In New Brunswick a hospital subsidy of \$27,600 was allotted to the health department by the provincial legislature in 1930.

The Saskatchewan department of health appropriated \$550,000 in 1930 as hospital aid. This included grants to general hospitals at 50 cents per patient per day and to the tuberculosis sanatoria at \$1 per patient per day. According to the union hospital act, rural municipalities are permitted to cooperate with urban municipalities in the establishment of a hospital. All hospitals complying with the regulations receive aid from the health department. At the close of 1929 there were 18 union hospitals in operation.

TABLE 290.—*Other divisions, 1925 and 1930*

Province	Division in charge in 1930	Amount appropriated		Personnel		Salary of director	
		1925	1930	1925	1930	1925	1930
Alberta.....	Municipal hospitals.....	\$8, 250	\$5, 650	2	2	\$2, 500	\$3, 000
New Brunswick.....	Hospital subsidies.....	18, 050	27, 600	(1)	(1)	(2)	(2)
Saskatchewan.....	Division of hospital management...	388, 477	550, 000	-----	-----	-----	-----

¹ Under central administration.

² Chief medical officer is the director.

A division of industrial hygiene has been established in Ontario to investigate the incidence of occupational diseases, particularly lead poisoning, silicosis in mines, and dermatitis; the ventilation problems in pulp and paper industries; and cases of infection caused by injuries. A laboratory is maintained for the investigation of problems associated with industrial hygiene. The total appropriation for this work was \$43,400 in 1930 and the salary of the director was \$4,400. The director was aided by a clinician, a research physician, an assistant, 6 investigators, and a stenographer.

Alberta - Organization of the Provincial Department of Health in 1930

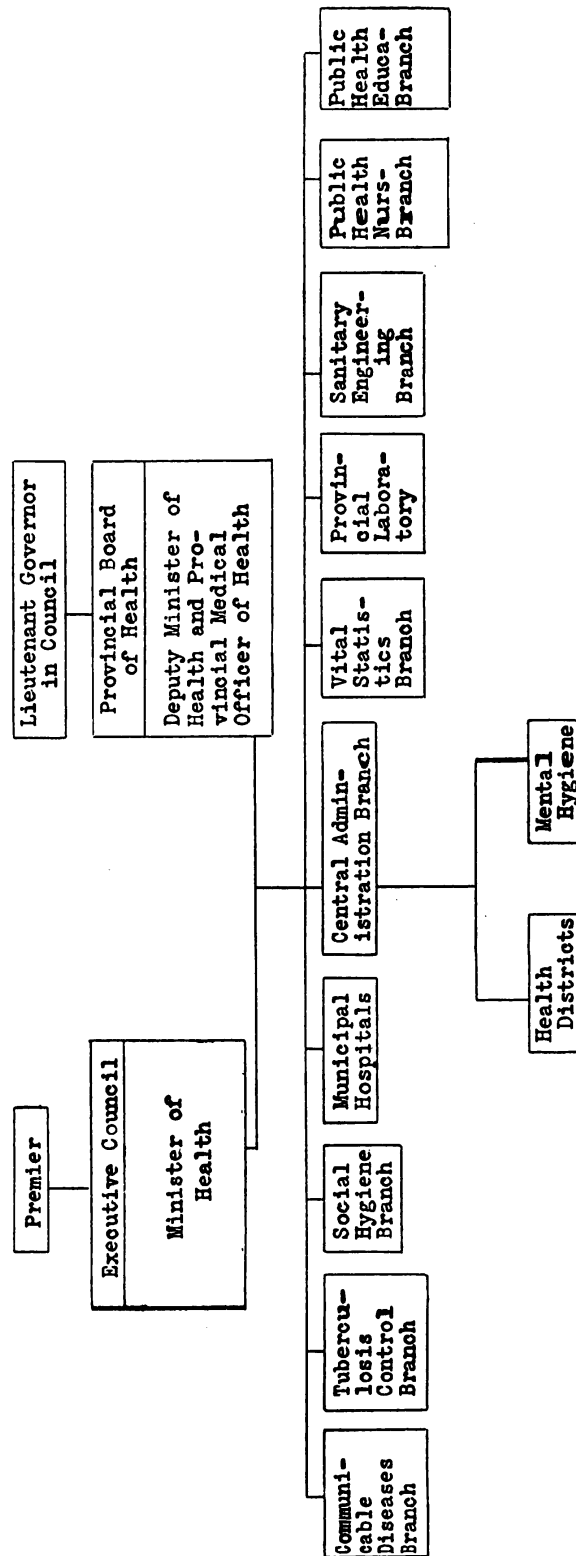


FIGURE 74

III. Summaries—Provincial Health Organizations by Provinces

ALBERTA

PROVINCIAL BOARD OF HEALTH

Organization.—The provincial board of health of Alberta consists of the deputy minister of health, who is the chairman, the provincial sanitary engineer, and the provincial bacteriologist, all of whom are appointed by the lieutenant governor in council.

Term of office and compensation.—The members of the board serve for the duration of their various provincial offices. When traveling on business for the board the members receive \$5 per day and transportation.

Meetings.—The provincial board of health meets three times a year and at such other times and at such places as may be fixed by resolution of the board.

EXECUTIVE OFFICER

Minister of health.—The minister of health is chosen by the premier as a member of his cabinet, and is the executive head of the provincial department of public health. He delegates his executive authority to the deputy minister of health, who is the provincial medical officer of health. The deputy minister of health is appointed by the lieutenant governor in council. No legal qualifications for a deputy minister of health are stated in the public health act.

Term of office and compensation.—The deputy minister of health serves during the pleasure of the lieutenant governor in council. He receives a yearly salary of \$5,000, traveling expenses, and an allowance of \$5 per day for living expenses while on official business.

POWERS OF THE PROVINCIAL DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The provincial department of public health has quasi judicial power and authority to make and enforce rules and regulations concerning sanitation, water pollution, sewage disposal, nuisances, communicable diseases, quarantine, milk supplies, and the prevention of the adulteration of food. The enforcement of the medical practice law is under the control of the college of physicians and surgeons. Midwives are not legally recognized.

APPROPRIATIONS

The provincial government makes an annual appropriation to the provincial health department, which appropriation is allotted to the various branches of the department.

TABLE 291.—*Branches of the provincial department of health in 1930*¹

ALBERTA

Branches	Total budgets by branches	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administrative branch.....	\$14,370	7	\$5,000	\$5,750	\$10,750
Communicable diseases branch.....	24,570	4	3,000	3,170	6,170
Tuberculosis control branch.....	220,822	98	5,500	115,539	121,039
Social hygiene branch.....	17,870	7	3,200	6,410	9,610
Municipal hospitals.....	5,650	2	3,000	950	3,950
Vital statistics branch.....	29,541	18	2,500	14,766	17,266
Provincial public health laboratory.....	36,000	13	4,500	18,000	22,500
Sanitary engineering branch.....	22,600	5	3,600	5,950	9,550
Public health nursing branch.....	51,150	² 21	2,300	34,450	36,750
Public health education branch.....	2,875	² 2	2,000	875	2,875

¹ Total appropriation, \$422,573; total appropriation exclusive of the tuberculosis sanatorium \$201,751; total provincial legislative appropriation \$422,573; total provincial legislative appropriation exclusive of tuberculosis sanatoria funds \$201,751.

² Officials included whose time is devoted to more than 1 activity.

CENTRAL ADMINISTRATIVE BRANCH

Personnel.—The personnel of the central administrative branch in 1930 consisted of the deputy minister of health, the assistant deputy minister of health, a secretary, the chief clerk, and four stenographers.

Civil service.—The employees of the provincial department of public health are civil-service appointees. A change in the provincial administration does not affect the tenure of personnel in the department.

Duties.—The deputy minister of health has charge of the administration of all acts and institutions assigned to the department, including hospitals for mental diseases, the training school for mental defectives, the tuberculosis sanatorium, the hospital act, the private hospitals act, etc.

Disbursement of funds.—Funds are disbursed by the department of public health with the approval of the provincial auditor.

Purchases.—Supplies are purchased by requisition drawn on the supervisor of purchases.

Health districts.—Each municipality in the Province of Alberta is a health district. Edmonton and Calgary have full-time health officers. The other municipalities are too small to provide for full-time health officers and the work is done by men who are paid either a small fee per annum or so much per visit. The department of public health employs four medical men on a full-time basis to work in the outlying districts where no private doctors are established.

Municipal hospital act.—Under the municipal hospital act the Province is divided into units with power to raise money. In 1929 there were 21 municipal hospital units and 6 new districts under organization.

Supervision.—The provincial department of health acts in an advisory capacity toward the local boards of health unless the local

organization fails to function, in which case the provincial department of health takes charge at the cost of the local government.

Mental hygiene.—The provincial mental hospitals at Ponoka and Oliver and the provincial training school for the feeble-minded at Red Deer are administered by the department of health. A social worker connected with institutions investigates home conditions and keeps in touch with discharged cases. Films of the various activities of the institutions are shown throughout the Province in an endeavor to familiarize the people with this type of work.

COMMUNICABLE-DISEASES BRANCH

Personnel.—The personnel of the communicable-diseases branch consisted in 1930 of a medical inspector, a health inspector, and a stenographer.

Reporting of diseases.—Cases of communicable diseases are reported within 24 hours to the provincial department of health by the local medical health officer. Physicians report directly to the provincial department in the "improvement districts."

Quarantine.—Quarantine measures are controlled by the local boards of health.

Smallpox vaccination.—Smallpox vaccination is not compulsory for school children.

Emergency fund.—Funds for use in case of emergency can be obtained from the provincial government by warrant.

TUBERCULOSIS-CONTROL BRANCH

Personnel.—The personnel of the tuberculosis-control branch consisted in 1930 of four physicians.

Sanatorium.—The central sanatorium in Alberta was transferred in 1925 by the Federal Government to the control of the department of health. This sanatorium has a capacity of 210 beds. Part of the capacity of all general hospitals is also reserved for tuberculosis cases. The provincial health department collects \$1.50 per day from the municipality concerned for each tuberculosis patient and bears the balance of the cost, which is about \$1.50 per day. The superintendent of the sanatorium, to whom the administration of the curative work is intrusted, advises the department of health on all matters pertaining to the prevention and control of tuberculosis.

Dispensary.—A tuberculosis dispensary is located at the university medical school and another at the sanatorium at Calgary. During 1929, 354 patients were treated at these clinics.

Education branch.—Considerable work of an educational nature has been carried on by the staff of this branch.

SOCIAL-HYGIENE BRANCH

Personnel.—In 1930, the staff of the social-hygiene branch consisted of a director and 3 physicians in charge of clinics who served part time; 4 nurses, 2 part time and 2 full time; 4 orderlies, 2 part time and 2 full time; and a stenographer.

Clinics.—In 1929 there were five venereal-disease clinics under the supervision of the social-hygiene branch. A total of 1,553 treatments, 487 of which were salvarsan, were given free during the year. Malaria treatments have been given to paresis cases at the provincial mental hospital at Ponoka.

MUNICIPAL HOSPITALS

Personnel.—The personnel of the office in charge of the municipal hospitals consisted in 1930 of a supervisor, a stenographer, and a clerk.

Organization.—Under the municipal hospital act the minister of health is directed to divide the Province into hospital districts. The people of each district elect to establish and subsequently vote on a plan prepared by the district. This plan proposes the amount of money to be raised by taxation for hospital purposes, the amount to be spent on the hospital, and the fees to be charged.

Hospital districts.—In 1930, 21 hospital districts were in operation. The hospitals vary in capacity from 10 to 62 beds. Hospital charges to all taxpayers or contributing supporters are \$1 per person per day. Deficits in the operation of hospitals is made up by taxation, which is levied at the rate of 3 cents per acre.

VITAL-STATISTICS BRANCH

Personnel.—The staff of the vital-statistics branch consisted in 1930 of a deputy registrar general, an assistant deputy registrar general, an accountant, and 12 stenographers.

Registration districts.—Each city, town, village, or school district in the province of Alberta constitutes a primary registration district.

Local registrars.—The local registrars are appointed by the lieutenant governor in council. A fee of 25 cents for each certificate issued is paid by the provincial government. Civil servants acting as local registrars receive a salary ex officio.

Reporting of deaths.—In 1929 approximately 100 per cent of the deaths occurring in the Province were reported; of these, 95 per cent were reported by physicians, and 5 per cent by others. Deaths must be reported to the local registrar within 24 hours and to the deputy registrar general monthly. Caretakers of cemeteries are required to report all interments to the health department every three months.

Legal standards.—The standard certificate and international list of the causes of death are used in this Province.

Reporting of births.—In 1929 it was estimated that 97 per cent of all births occurring in the Province were reported; all were reported by parents. Births must be reported to the local registrar within 30 days and to the deputy registrar general monthly.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The Federal Government supplies the blanks for recording the returns and the postage is franked.

Unlawful death.—In case death is thought to be caused by unlawful means the coroner is notified.

Burial permits.—Burial permits are necessary and are issued by the local registrar.

Licensing.—Physicians are licensed by the college of physicians and surgeons. Midwives and undertakers are not licensed.

PROVINCIAL PUBLIC-HEALTH LABORATORY

Personnel.—The staff of the provincial public-health laboratory consisted in 1930 of a director, a bacteriologist, 2 pathologists, an analyst, 2 assistant analysts, the provincial veterinarian who served part time, 5 technicians, 2 laboratory assistants, and 2 stenographers. The director of the laboratory is the provincial bacteriologist, dean of the medical school, and professor of bacteriology and hygiene.

Central laboratory.—The central laboratory is located at the University of Alberta and is operated by the university medical school. An appropriation for maintenance is made through the provincial board of health.

Branch laboratories.—Three branch laboratories, financed by the provincial department of public health are located at Edmonton, Calgary, and Lethbridge.

Private laboratories.—The provincial board of health has no supervision over the private laboratories in the Province.

Special laboratory.—No special laboratory is maintained by the provincial department of public health.

Activities.—During 1929, 40,054 examinations were made by the laboratory. These included chiefly Wassermann tests, milk and water analyses, and examination of tuberculosis sputa and diphtheria cultures. A summary of diagnostic activities is given on page 700.

Fees.—No fee is charged for any examination made by the laboratory.

Biological products.—With the exception of typhoid vaccine which is manufactured by the laboratory, biological products are purchased and distributed free by the communicable disease branch. A fee is charged for curative treatment. A list of the biologicals issued during 1929 is given on page 701.

SANITARY-ENGINEERING BRANCH

Personnel.—The staff of the sanitary-engineering branch consisted in 1930 of a sanitary engineer, three sanitary inspectors, and a stenographer.

Public water supplies and sewage-disposal systems.—Plans for the installation, alteration, or extension of public water supplies and sewage-disposal systems must be submitted to the provincial department of health for approval.

Bottled waters.—Rules and regulations have been passed concerning the control of bottled waters.

Analysis.—Public water supplies are analyzed monthly or oftener if necessary.

Inspection.—Water-purification plants are inspected at least once a year.

Ice.—A permit from the provincial board of health is necessary for the cutting of ice.

Camps and roadside water supplies.—Rules and regulations concerning the sanitation of tourist and summer camps and roadside water supplies have been passed.

Swimming pools.—The sanitation of swimming pools is a function of the provincial department of health.

Food and drug laws.—The sanitary-engineering branch of the health department exercises some control over the enforcement of the food and drug laws.

Food handlers.—The provincial department of health requires the medical examination of all persons handling food.

Inspection.—The inspection of food to prevent adulteration and the inspection of hotels, bakeries, slaughterhouses, and cold-storage warehouses are functions of the health department.

Shellfish.—The prevention of the pollution of shellfish is an activity of the sanitary-engineering branch of the health department.

Milk supplies.—The provincial department of health enforces the milk laws and analyzes milk supplies. The tuberculin testing of cattle is an activity of the department of agriculture and the inspection of dairies is a function of the municipal boards of health.

PUBLIC-HEALTH NURSING BRANCH

Personnel.—In 1930 the staff of the public-health nursing branch consisted of a superintendent, 6 public-health nurses, 7 district nurses, 7 registered nurses who served part time, and a stenographer.

Prenatal clinics.—In 1929 three permanent child-welfare clinics were maintained and a traveling clinic gave some attention to pre-natal work.

Midwifery.—No supervision or instruction is given to midwives.

Ophthalmia neonatorum.—A 1 per cent solution of silver nitrate or a 25 per cent solution of argyrol must be instilled into the eyes of the newborn.

Lying-in hospitals and orphanages.—Maternity hospitals are licensed by the provincial board of health. Orphanages are not licensed.

Infant and preschool hygiene.—A traveling clinic with a staff including a surgeon; a diagnostician; a dentist; an eye, ear, nose, and throat specialist; and several nurses is maintained by the provincial department of health.

School hygiene.—School children are examined by school physicians in Edmonton and Calgary. In rural districts medical examinations are conducted in some cases by local doctors, but generally by public-health nurses and teachers in normal schools.

Eligibility requirements for nurses.—A provincial public-health nurse must be a graduate of a hospital recognized and approved by the provincial board of health, and preferably have training in public-health work.

PUBLIC-HEALTH EDUCATION BRANCH

Personnel.—In 1930 the staff of the public-health education branch consisted of a supervisor and a part-time lecturer.

Publicity.—The publicity activities of the provincial health department are a function of the branch of public-health education.

Press service.—A weekly letter is sent to the various newspapers.

Bulletin.—A bulletin is issued monthly and pamphlets on special subjects are published occasionally.

Equipment.—The provincial department of health owns two motion-picture machines and several films.

Cooperation.—The provincial departments of health and of education cooperate in carrying out their respective programs.

TABLE 292.—Total budget, provincial legislative budget for health work, and budgets by branches, by years

ALBERTA

Branch	1915	1916	1917	1918	1919	1920
Total budget.....	\$48,700	\$42,060	\$44,000	\$64,500	\$161,780	¹ \$257,751
Total budget exclusive of tuberculosis sanatoria funds.....	48,700	42,060	44,000	64,500	161,780	207,751
Total provincial legislative budget.....	48,700	42,060	44,000	64,500	161,780	245,751
Total provincial budget exclusive of tuberculosis-sanatoria funds.....	48,700	42,060	44,000	64,500	161,780	195,751
Central-administration branch.....	8,000	6,300	6,220	8,000	9,260	7,950
Communicable-diseases branch.....	20,000	13,000	15,000	20,000	60,290	29,000
Vital-statistics branch.....	11,000	11,000	12,000	15,000	20,150	22,275
Public-health laboratory.....	7,000	9,060	8,080	12,500	13,700	16,326
Sanitary-engineering branch.....	2,700	2,700	2,700	9,000	14,000	20,650
Municipal hospitals.....	-----	-----	-----	-----	11,880	14,300
Public-health nursing branch.....	-----	-----	-----	-----	32,500	49,250
Social-hygiene branch.....	-----	-----	-----	-----	-----	¹ 24,000
Tuberculosis-control branch.....	-----	-----	-----	-----	-----	50,000

¹ Dominion Government funds included. (See Table 293.)

TABLE. 229.—*Total budget, provincial legislative budget for health work, and budgets by branches, by years—Continued*

ALBERTA—Continued

Branch	1921	1922	1923	1924	1925
Total budget.....	¹ \$259, 357	¹ \$343, 146	¹ \$294, 731	¹ \$287, 025	¹ \$355, 255
Total budget exclusive of tuberculosis-sanatoria funds.....	204, 357	228, 546	185, 231	162, 025	173, 255
Total provincial legislative budget.....	241, 388	331, 166	282, 751	276, 419	346, 873
Total provincial budget exclusive of tuberculosis-sanatoria funds.....	186, 388	216, 566	173, 351	151, 419	164, 873
Central-administration branch.....	8, 300	9, 550	8, 700	10, 750	12, 100
Communicable-diseases branch.....	35, 000	24, 050	23, 950	14, 800	20, 434
Vital-statistics branch.....	25, 025	28, 360	25, 425	23, 650	22, 725
Public-health laboratory.....	25, 240	29, 000	32, 000	32, 000	34, 000
Sanitary engineering branch.....	16, 750	18, 625	18, 300	18, 700	18, 176
Municipal hospitals.....	15, 700	16, 100	13, 350	9, 700	8, 250
Public-health nursing branch.....	54, 350	84, 900	39, 928	34, 500	37, 650
Social-hygiene branch.....	¹ 23, 992	¹ 19, 961	¹ 23, 578	¹ 17, 925	¹ 19, 920
Tuberculosis-control branch.....	55, 000	114, 600	109, 500	125, 000	182, 000

Branch	1926	1927	1928	1929	1930
Total budget.....	\$320, 520	\$347, 084	\$361, 193	\$400, 375	\$422, 573
Total budget exclusive of tuberculosis-sanatoria funds.....	166, 500	191, 809	183, 510	192, 544	201, 751
Total provincial legislative budget.....	320, 520	347, 084	361, 193	400, 375	422, 573
Total provincial budget exclusive of tuberculosis-sanatoria funds.....	166, 500	191, 809	183, 510	192, 544	201, 751
Central-administration branch.....	12, 400	13, 270	13, 945	14, 270	14, 370
Communicable-diseases branch.....	14, 950	24, 300	23, 450	23, 525	24, 570
Vital-statistics branch.....	24, 300	25, 395	27, 235	26, 750	29, 541
Public-health laboratory.....	35, 000	35, 540	36, 000	35, 550	36, 000
Sanitary engineering branch.....	21, 120	20, 100	23, 100	27, 125	22, 600
Municipal hospitals.....	5, 450	5, 300	5, 250	5, 050	5, 050
Public-health nursing branch.....	37, 120	50, 304	37, 700	42, 834	51, 150
Social-hygiene branch.....	16, 260	17, 600	16, 830	17, 440	17, 870
Tuberculosis-control branch.....	154, 020	155, 275	177, 683	207, 831	220, 822
Public-health education branch.....			2, 875	2, 875	2, 875

¹ Dominion Government funds included. (See Table 293.)TABLE 293.—*Total appropriations for provincial department of health, by years*

ALBERTA

Year	Total appropriation	Appropriation exclusive of tuberculosis-sanatoria funds	Source of funds and amounts		
			Provincial legislature	Dominion Government appropriation for venereal diseases	Tuberculosis sanatorium
1915.....	\$48, 700	\$48, 700	\$48, 700		
1916.....	42, 060	42, 060	42, 060		
1917.....	44, 000	44, 000	44, 000		
1918.....	64, 500	64, 500	64, 500		
1919.....	161, 780	161, 780	161, 780		
1920.....	233, 751	183, 751	221, 751	\$12, 000	\$50, 000
1921.....	259, 365	204, 365	241, 396	17, 969	55, 000
1922.....	347, 385	232, 785	335, 405	11, 980	114, 600
1923.....	294, 153	184, 653	282, 173	11, 980	109, 500
1924.....	293, 100	168, 100	282, 494	10, 606	125, 000
1925.....	355, 255	173, 255	346, 873	8, 382	182, 000
1926.....	320, 520	166, 500	320, 520		154, 020
1927.....	347, 084	191, 809	347, 084		155, 275
1928.....	361, 193	183, 510	361, 193		177, 683
1929.....	400, 375	192, 544	400, 375		207, 831
1930.....	422, 573	201, 751	422, 573		220, 822

British Columbia - Organization of the Provincial Department of Health in 1930

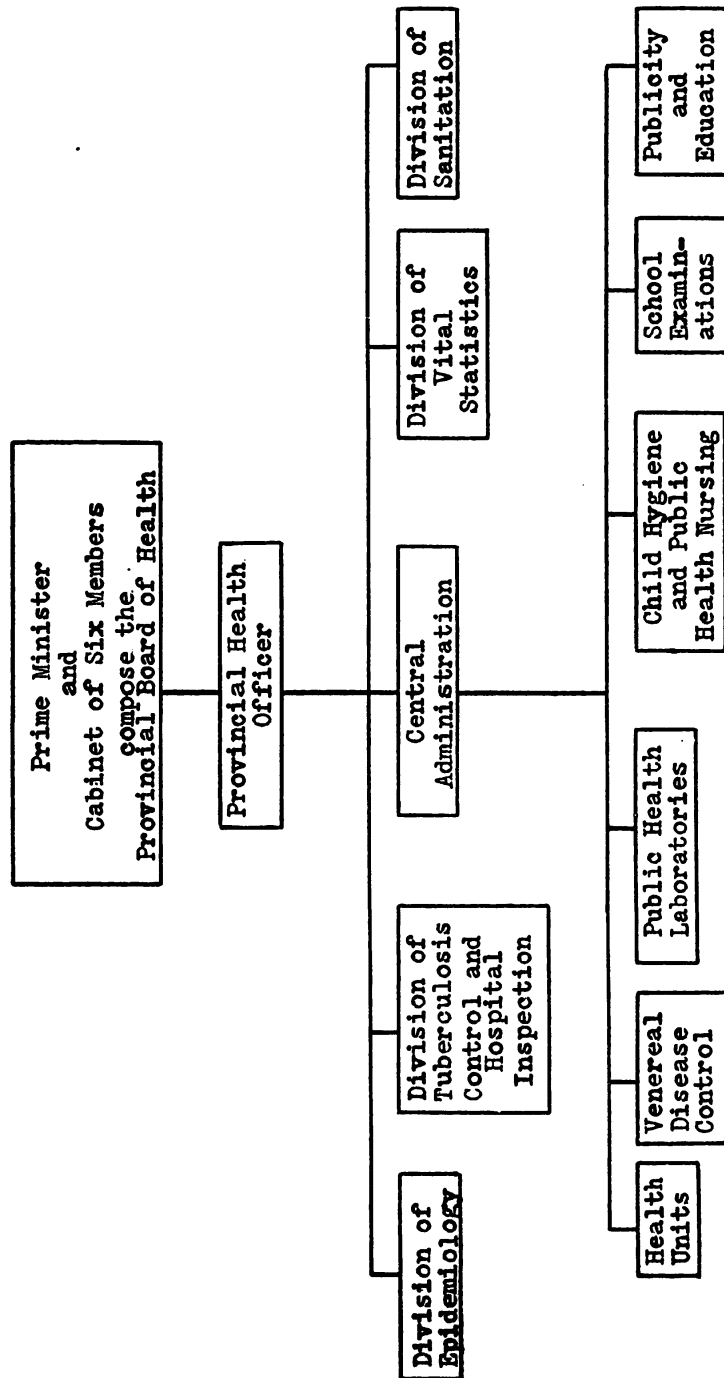


FIGURE 75

BRITISH COLUMBIA

PROVINCIAL BOARD OF HEALTH

Organization.—The prime minister and the members of his cabinet, six in number, constitute the provincial board of health of British Columbia.

Term of office and compensation.—The members of the cabinet are elected to parliament and serve during the life of the government. They can not serve more than five years without being reelected, but if parliament fails to sustain the government the cabinet may go out earlier. The members do not receive any compensation as members of the provincial board of health. If necessary, the cabinet may sit as a board of health. One minister, the provincial secretary, acts as the chairman of the provincial board of health and introduces all orders or regulations to the cabinet which are presented by the provincial health officer.

EXECUTIVE OFFICER

Legal qualifications.—The provincial health officer must be a registered medical practitioner. He is appointed by the prime minister and his cabinet under the civil service act and is the secretary of the provincial board of health.

Term of office and compensation.—There are no limitations to the term of office of the executive officer, except that of the retiring age, stipulated in the civil service act as 65 years. The provincial health officer receives a yearly salary of \$4,680 and his traveling expenses, paid on vouchers examined by the audit department.

POWERS OF THE PROVINCIAL BOARD OF HEALTH

Judicial, legislative, and executive powers.—The provincial board of health has no judicial power but has authority to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, milk supplies, nuisances, communicable diseases, quarantine, and midwifery. The prevention of the adulteration of food is a function of the Federal Government. Enforcement of the medical practice law, which comes under the medical act, is not intrusted to the provincial health department. The provincial secretary is the executive head of the provincial board of health. He delegates his executive authority to the provincial health officer.

APPROPRIATIONS

The legislative assembly makes an annual appropriation to the provincial board of health which is allotted to the various divisions.

TABLE 294.—*Divisions of the provincial department of health in 1930*¹

BRITISH COLUMBIA

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$102,984	3	\$4,680	\$2,304	\$6,984
Division of epidemiology.....	5,700	2	3,600	900	4,500
Division of tuberculosis control and hospital inspection.....	6,540	2	4,240	(²)	4,240
Division of vital statistics.....	12,212	9	2,020	7,692	9,712
Division of sanitation.....	7,410	1	2,760	-----	2,760

¹ Total appropriation, \$134,846; total appropriation exclusive of tuberculosis-sanatoria funds, \$134,846; provincial legislative appropriation, \$125,346.

² Salary paid from Christmas-seal fund.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the provincial health officer and two secretaries.

Civil service.—The employees of the provincial health department are civil-service appointees. A change in provincial administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed through the provincial board of health by the provincial health officer. Vouchers originated by the provincial health officer and countersigned by the provincial secretary are paid by the provincial treasurer. Vouchers are checked by the auditor's department.

Purchases.—Supplies are purchased through the government purchasing department.

Local health organization.—In cities and rural municipalities the local boards of health have authority to act in matters pertaining to health. All other territory is known as unorganized territory and comes directly under the supervision of the provincial board of health.

Full-time organizations.—At the close of 1930 three full-time local health organizations were in operation: the Saanich unit which was established in 1927; the Kelowna district unit, which began operations in 1929; and the North Vancouver district unit which was started in 1930. In addition full-time health organizations have been established in three municipalities, Vancouver, Victoria, and Trail.

Supervision.—The provincial board of health acts in a supervisory capacity toward local organizations. In case a local organization fails to act, the provincial health officer assumes control at the expense of the municipality. Local health officers or physicians are paid by the Province at the usual professional rates for health work done for the Province. The expenditure of the Province for such services averages about \$3,000 a year.

Venereal diseases.—The control of venereal diseases is a function of the central office.

Clinics.—Venereal-disease clinics were opened in 1919. In that year a survey of a mental home with about 1,600 patients showed that 12 per cent of the patients were ill because of acquired syphilis. In 1929, two clinics were conducted by the health department. Physicians are allowed \$5 for syphilis and \$2 for gonorrhea treatments. Medicine is furnished free by the provincial department of health.

Treatments.—During 1929 a total of 46,202 treatments were given, of which 7,202 were salvarsan.

Public health laboratories.—A provincial laboratory was established in 1913. Work was suspended during the war, however, and afterwards arrangements were made with four general hospitals (in Kamloops, Kelowna, Vancouver, and Victoria), for carrying on the laboratory work of the department of health. The provincial laboratory is still intact and could be used if the hospital arrangement lapsed. There is, therefore, no provincial laboratory as such in British Columbia. The laboratory work carried on at the four general hospitals is on a contract basis for which the provincial government pays so much per specimen. In 1930 the total provincial subsidy amounted to \$10,200.

Branch and private laboratories.—No branch laboratories have been established and the provincial department of health has no supervision over the private laboratories in the Province.

Special laboratories.—No special laboratories have been established other than the laboratories maintained at the four general hospitals.

Activities.—The laboratory work includes milk, water, and sewage examinations and pathological examinations for the hospitals. During 1929, 124,919 examinations were made at the four laboratories. The greater part of the examinations included examinations of tuberculosis sputa, Wassermann tests, and examinations of diphtheria cultures. A summary of diagnostic activities is given on page 700.

Fees.—No charge is made for services performed by the laboratory.

Biological products.—Biological products are purchased and distributed free to physicians, government agents, and hospitals through the central office. A detailed list of the biologicals issued in 1929 is given on page 701.

Child hygiene and public-health nursing.—Activities relating to child hygiene and public-health nursing are carried on by the central administrative staff. Fifty-six public health nurses assist in carrying on this work.

Prenatal hygiene.—A complete program of prenatal work is carried on by all public-health nurses. No permanent clinics have been established.

Midwifery.—No supervision or instruction is given to midwives.

Ophthalmia neonatorum.—In 1926 a Federal regulation concerning cases of ophthalmia neonatorum was adopted for all Provinces.

Lying-in hospitals and orphanages.—Hospitals coming under the hospital act and orphanages are licensed by the provincial secretary's department.

Infant and preschool children.—Two health centers, one near Victoria and one at Duncan, have been established where the examinations of infants and preschool children is carried on. A record is made of each child examined until it enters school, after which a school record is kept. A complete program of infant and preschool hygiene is carried on throughout the Province.

Eligibility requirements.—A public health nurse must be a registered nurse and a university graduate if available; if not, she must have had a 1-year course in public-health nursing at the university. A 5-year course in public-health nursing is provided by the university of British Columbia leading to the degree of B. Sc. in nursing. In 1930, 60 per cent of the staff held this degree. Eventually it will become obligatory in order to secure a position with the provincial department of health.

Medical inspection of schools.—The board of school trustees of every city, town, and district is authorized to appoint one or more registered physicians as school health inspectors. These inspectors are paid by the municipality. The provincial board of health will assist financially in starting school-inspection work, but encourages part payment by the parents, especially in dental work. In many districts this work is now on a self-supporting basis. In unorganized districts the work is carried on entirely by the provincial board of health. The provincial department of health pays the medical inspectors 50 cents per pupil and 50 cents per mile one way for carrying on this work.

Publicity.—The publicity activities of the provincial department of health are carried on by the provincial health officer in cooperation with the government publicity department.

Press service.—The health department enjoys good press service throughout the Province.

Bulletins.—A regular bulletin is not published, but 233,452 pamphlets were issued in 1929.

Equipment.—The provincial board of health owns a stereopticon, about 150 slides, and 6 motion-picture films.

Cooperation.—Through the agricultural department, the department of health aids in conducting organizations for rural districts known as women's institutes. The public-health nurses are authorized also to conduct educational activities. The provincial departments of health and of education cooperate in carrying on their respective programs.

DIVISION OF EPIDEMIOLOGY

Personnel.—The division of epidemiology was established in August, 1929. The staff of this division in 1930 consisted of an epidemiologist and a secretary.

Reporting of diseases.—Cases of communicable diseases must be reported by the local health officers to the provincial board of health within 24 hours.

Quarantine.—Quarantine measures are under the control of the local health officers.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children. However, any person who makes an affidavit before a magistrate to the effect that he believes vaccination would be prejudicial to his health or the health of his child may be declared exempt from vaccination.

Emergency fund.—All emergencies are met by grants from the government on recommendation of the provincial health officer.

DIVISION OF TUBERCULOSIS CONTROL AND HOSPITAL INSPECTION

Personnel.—In 1930 the work of the division of tuberculosis control was carried on by a traveling physician and a nurse.

Sanatorium.—One tuberculosis sanatorium with a capacity of 346 beds is under the control of the provincial secretary's department.

Provincial hospitals.—The provincial hospitals set aside 10 per cent of their bed capacity for tuberculosis patients and the provincial government subsidizes these hospitals at the rate of \$1 per day for tuberculosis cases. During 1930 the provincial government provided \$57,000 for this purpose.

Activities.—The provincial board of health cooperates with the sanatorium and public-health nurses in carrying on tuberculosis work.

Clinics.—In 1929 a traveling tuberculosis clinic was conducted under the supervision of the department of health and a total of 991 examinations was made.

Hospitals.—Every hospital coming under the hospital act receives a per diem per capita grant whether patients pay or not. Private hospitals are supervised and licensed but not subsidized.

DIVISION OF VITAL STATISTICS

Personnel.—The registrar of vital statistics was assisted in 1930 by the deputy registrar, an inspector of vital statistics, five clerks, and four stenographers.

Registration districts.—The mining divisions are the primary registration districts of the Province at present.

Local registrars.—In each mining district a government official, appointed pursuant to the civil service act, serves as the local registrar of vital statistics. In some municipalities local residents, such as postmasters, act as subregistrars. The government employees are paid a regular salary and do not receive fees. Otherwise, a fee of 25 cents for each record issued, or in some cases a monthly allowance of about \$15, is paid by the provincial board of health.

Reporting of deaths.—In 1929 about 98 per cent of the deaths occurring in the Province were reported; of these, 90 per cent were reported by physicians and undertakers. Deaths must be reported to the local registrar before burial and to the provincial registrar once a month.

Legal standards.—The standard certificate and international list of the causes of death are used in the Province.

Reporting of births.—In 1929, about 85 per cent of the births occurring in the Province were reported. Physicians and hospitals send a notice of a birth to the provincial health department. The parents make out and sign the birth certificate and send it to the local registrar. Births must be reported to the local registrar within 60 days and to the provincial registrar once a month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The Federal Government supplies the blanks for recording the returns and the postage is franked.

Unlawful death.—In case death is thought to be caused by unlawful means, the coroner makes an inquest.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the College of Physicians and Surgeons. Midwives and undertakers are not licensed.

DIVISION OF SANITATION

Personnel.—In 1930 the sanitary engineer constituted the personnel of the division of sanitation.

Public-water supplies and sewage-disposal systems.—Plans for the establishment, extension, or alterations of public water supplies or sewage-disposal systems must be submitted to the provincial board of health for approval.

Bottled waters.—The provincial health department has control over bottled waters.

Analysis.—Public water supplies in Vancouver and Victoria are analyzed weekly and in other towns upon request.

Purification plants.—There are no water-purification plants in the province.

Ice.—All persons cutting ice for sale must obtain a permit from the local board of health.

Camps and roadside water supplies.—Rules and regulations have been made by the provincial board of health in regard to the sanitary conditions of camps and roadside water supplies.

Swimming pools.—Legislation has been passed concerning the sanitation of swimming pools.

Milk supplies.—The provincial department of health has control over milk supplies through the local boards of health. Samples of milk are tested in the laboratories. Dairies are inspected and licensed by the local boards of health.

Slaughterhouses.—Slaughterhouses are inspected by the division of sanitation.

Shellfish.—The prevention of the pollution of shellfish is a function of the division of sanitation.

TABLE 295.—*Total budget, provincial legislative budget for health work, and budgets by divisions, by years*¹

BRITISH COLUMBIA

Division	1929	1930
Total appropriation.....	^{2 3} \$131, 479	^{2 3} \$134, 846
Provincial legislative appropriation.....	120, 494	125, 346
Central administration.....	99, 830	102, 984
Division of epidemiology.....	^{2 3} 4, 100	^{2 3} 5, 700
Division of tuberculosis control and hospital inspection.....	6, 540	6, 540
Division of vital statistics.....	9, 914	12, 212
Division of sanitation.....	6, 910	7, 410

¹ Appropriations for the provincial health department were made in a lump sum up to 1929.

² Dominion funds included. (See Table 296.)

³ Rockefeller Foundation funds included.

TABLE 296.—*Total appropriations for provincial department of health, by years*

BRITISH COLUMBIA

Year	Total appropriation	Source of funds and amounts			
		Provincial legislature	Dominion appropriation for venereal diseases	Municipality	Rockefeller Foundation
1915.....	\$53, 780	\$53, 780			
1916.....	44, 860	44, 860			
1917.....	49, 860	49, 860			
1918.....	50, 708	50, 708			
1919.....	51, 814	51, 814			
1920.....	82, 534	67, 906	\$14, 628		
1921.....	81, 658	67, 030	14, 628		
1922.....	114, 280	105, 610	8, 670		
1923.....	114, 220	105, 550	8, 670		
1924.....	112, 114	105, 240	6, 874		
1925.....	140, 000	102, 126	6, 874	\$31, 000	
1926.....	110, 290	105, 290	5, 000		
1927.....	114, 335	107, 002	5, 000		\$2, 333
1928.....	126, 154	117, 154	5, 000		4, 000
1929.....	131, 479	120, 494	5, 000		5, 985
1930.....	134, 846	125, 346	5, 500		4, 000

Manitoba - Organization of the Provincial Department of Health and Public Welfare in 1930

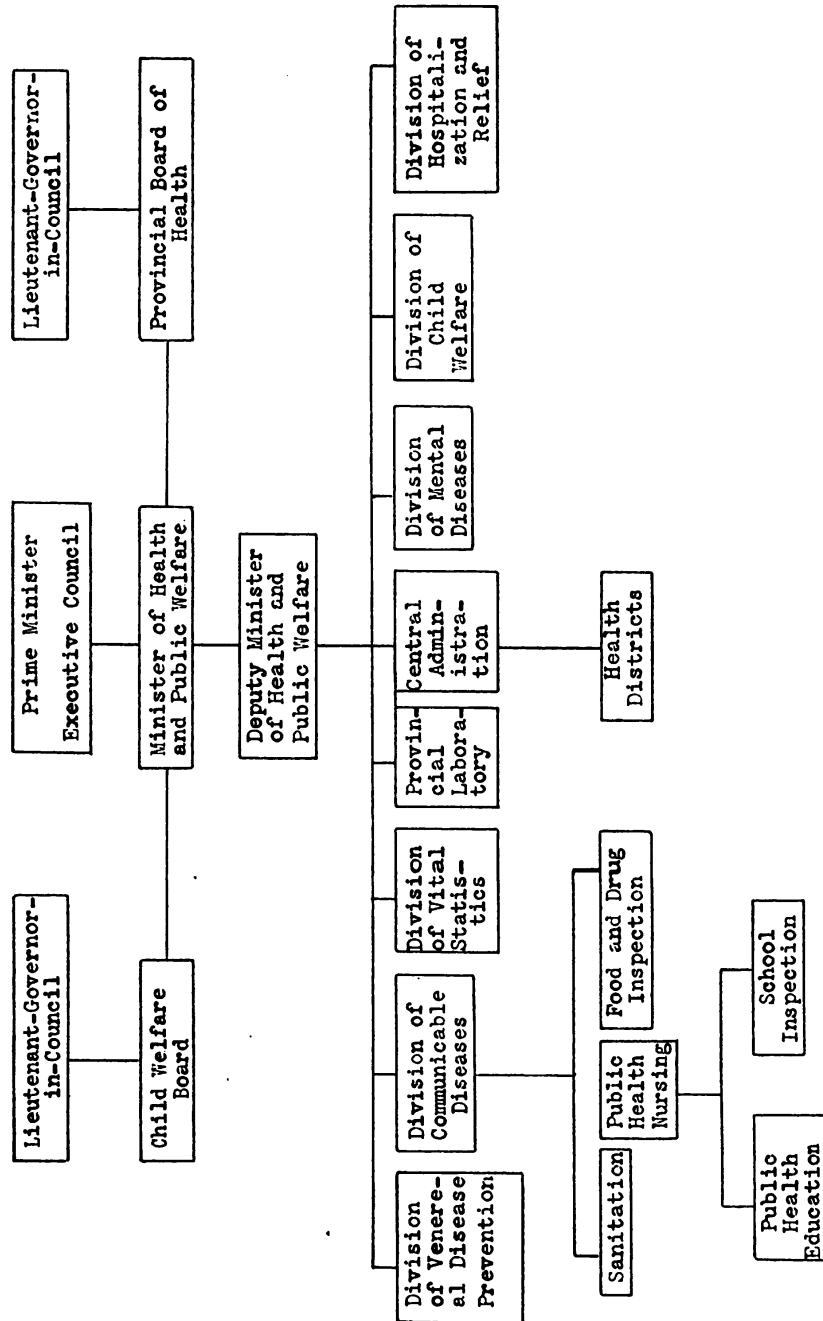


FIGURE 76

MANITOBA

PROVINCIAL BOARD OF HEALTH

Organization.—The provincial department of health and public welfare was created in March, 1928, and combines the activities of public health and public welfare previously carried on under several portfolios. There are two boards, the provincial board of health and the child-welfare board.

Provincial board of health.—This board consists of the minister of health and public welfare, deputy minister of health and public welfare, and the provincial bacteriologist, ex officio; and of five physicians and a lawyer appointed by the lieutenant governor in council. One of the five physicians, other than those holding full-time salaried positions, is named by the lieutenant governor in council as the chairman of the board.

Term of office and compensation.—The members of the board serve for a term of three years, all terms expire at the same time. They receive a salary of \$10 per diem and traveling expenses.

Meetings.—The board is required to meet once annually. By resolution, the board has decided to hold semiannual meetings at fixed dates.

Executive committee.—The executive committee of the board consists of five members, all physicians, and meets as often as is deemed necessary at the call of the chairman. Ten dollars per day is allowed members other than salaried members and transportation expenses are paid.

Child-welfare board.—Under the child welfare act, the lieutenant governor in council appoints a board of five to seven members to act as an advisory body to the minister and director of child welfare. The members serve without remuneration

EXECUTIVE OFFICER

Deputy minister.—The executive power of the department is vested in the minister of health and public welfare, who is appointed by the prime minister. This power is delegated by him to the deputy minister, who is selected from outside the board by the lieutenant governor in council. The deputy minister serves as the executive officer of the board of health and, under the public health act, is the chief officer of health for the Province.

Legal qualifications.—The deputy minister must be a registered medical practitioner.

Term of office and salary.—The deputy minister holds office during the pleasure of the lieutenant governor in council. He receives at present a yearly salary of \$4,600 and transportation expenses.

POWERS OF THE PROVINCIAL DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The health and public welfare act states that the minister shall preside over, manage, and direct the department of health. The department of health shall in turn have administrative jurisdiction over all matters in the Province which relate to health and public welfare. The department may make rules and regulations, may institute inquiry into and collect information relating to all matters of health and public welfare, may disseminate information, and take and direct such measures as may seem suitable to prevent and suppress disease and promote public welfare. The board has quasi-judicial authority and the power to make rules and regulations concerning sanitation, water pollution, sewage disposal, milk supplies, nuisances, communicable diseases, and quarantine. The control of food adulteration is a function of the Federal Government. The provincial department of health has no control of midwifery and does not enforce the medical practice act.

APPROPRIATIONS

The legislative assembly makes an annual appropriation for the provincial department of health.

TABLE 297.—Divisions of the provincial department of health in 1930 ¹

MANITOBA

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$15,760	4	\$4,600	\$4,860	\$9,460
Board of health.....	1,500				
Health district.....	11,400	4	4,000	4,680	8,680
Division of communicable diseases.....	41,854	6	4,600	15,254	19,854
Public-health nursing.....	104,210	41	2,300	76,270	78,570
Division of venereal-disease prevention.....	20,500	6	3,000	8,500	11,500
Division of vital statistics.....	14,700	6	3,000	7,300	10,300
Provincial laboratory.....	18,620	7	4,600	11,420	16,020

¹ Total appropriation, \$228,544; total appropriation exclusive of tuberculosis sanatoria funds, \$228,544; provincial legislative appropriation, \$228,544.

² Not included in total appropriation for department of health.

³ Officials included whose time is devoted to more than 1 activity.

CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office, in addition to the minister of health and his secretary, consisted in 1930 of the deputy minister, an accountant, and two stenographers.

Civil service.—The employees of the department, with the exception of the minister's secretary, are all civil-service appointees. Their tenure of office is not affected by change in provincial administration.

Disbursement of funds.—All public-health funds are disbursed by the provincial treasurer on certificate of the minister of health and public welfare.

Purchases.—All goods are requisitioned through the office of the deputy minister. After being certified as correct by the accountant and approved by the deputy minister, requisitions are passed to the government purchasing agent. All drugs, chemicals, reagents, sera, etc., are specified by the head of each division making the request and are generally not requisitioned as are other goods.

Health districts.—The public health act provides for the formation of five or more health districts, but to date no such districts have been formed. A recent act, however, provides for the establishment of full-time rural health districts. One such unit began operations May 1, 1930; the funds for the central government's subsidy were provided during the last session of the legislature.

Personnel.—The personnel of the rural health district consisted in 1930 of a medical health officer, a nurse, a sanitary inspector, and a clerk.

Municipalities.—The council of every municipality is authorized to appoint a health officer and to appropriate and expend such sums of money as are deemed necessary for public health purposes.

Supervision.—The provincial department of health has supervisory and advisory control over any health district formed in the Province. In case a municipality fails to appoint a health officer or in case a health officer neglects his duties, the department may appoint a health officer and charge any expenses incurred to the municipality.

Tuberculosis.—The control and treatment of tuberculosis is a function of the sanatorium board of the Province. The department of health assists financially by providing capital expenditure for buildings and partial maintenance of patients in the hospital. The public health nurses assist in organizing the clinics which are carried on throughout the Province by members of the sanatorium staff at Ninette.

Sanatoria.—At present two hospitals in the Province are devoted especially to the care of tuberculous patients. One of these is controlled by the Winnipeg City Hospitals Commission and the other by the sanatorium board. To correlate the activities of all agencies caring for the tuberculous, funds have been voted by the legislature to build a new hospital and central clinic in or near Winnipeg.

Clinics.—Tuberculosis clinics are conducted in the general hospitals of the cities and throughout rural sections of Manitoba each summer. Portable X-ray equipment is available and each examination is done by a chest specialist. Adequate records are kept and follow-up work is carried on by the public-health nursing division.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—The work of the division of communicable diseases is directed by a registered medical practitioner with special training in public-health work. He was assisted in 1930 by a personnel of six, including a food and dairy inspector and a chief sanitary inspector. The personnel of the public-health nursing section is directed by the provincial epidemiologist.

Activities.—The staff of the division which carries on work in preventable diseases collects, tabulates, and utilizes weekly morbidity reports from all local health officers; investigates undue prevalence of diseases; endeavors to prevent the spread of epidemics; and distributes antitoxins and vaccines.

Reporting of diseases.—Cases of communicable diseases are reported daily to the provincial department of health by the medical health officer.

Quarantine.—The medical health officers have control of quarantine measures.

Smallpox vaccination.—Smallpox vaccination is not compulsory but may be made compulsory within the limits of any specified locality, if the provincial department of health deems such a measure necessary.

Typhoid inoculation.—Inoculation for typhoid may be made compulsory on the advice of the provincial board of health in any case where an epidemic is threatened.

Emergency fund.—In addition to the usual annual expenditure, an emergency fund of \$5,000 has been set aside for epidemics.

Sanitation.—A chief sanitary inspector has been recently appointed.

Public water supplies and sewerage systems.—All public water supplies and sewerage systems in the Province are under the control of the department of health.

Bottled waters.—No control over bottled waters is exercised by the department of health.

Analyses and inspection.—Water supplies are analyzed and purification plants are inspected by the health department.

Ice industry.—The ice industry is controlled through legislation passed by the health department.

Camp grounds.—The sanitation of camp grounds is a function of the provincial health department.

Swimming pools and roadside water supplies.—As yet no legislation has been passed concerning the sanitation of swimming pools and roadside water supplies.

Food inspection.—The inspection of food is a function of the division of communicable diseases. The chief activities are the inspection of dairies, bottling and canning plants, slaughterhouses, butcher shops, and abattoirs. Public eating houses are supervised. The control of food adulteration rests with the Federal authorities.

Food handlers.—The medical examination of persons handling food is not required by the health department.

Cold storage.—Cold storage warehouses are not inspected by the department of health.

Shellfish.—The prevention of the pollution of shellfish is not a function of the provincial health department.

Milk supplies.—Certified milk is placed on the market under the supervision of a qualified veterinary surgeon. The milk is sampled daily and examined for its bacteriological content as well as for its food value. Pasteurization and the tuberculin testing of cattle are not functions of the health department.

Public-health nursing service.—Manitoba was the first Province to establish (1919) a public-health nursing service for rural districts. In 1929, 22 nursing stations and five Red Cross nursing stations in outlying districts were assisted by government funds.

Personnel.—The director of public-health nurses, assisted by four supervisors, namely, the supervisor of public-health education; the supervisor of maternity homes, baby-boarding homes, and day nurseries; the field supervisor; and the supervisor of normal school public health teaching. In addition there are 33 field nurses, a stenographer, and 2 office assistants.

Prenatal clinics.—Although no prenatal clinics are held, expectant mothers are encouraged to come to the child-welfare stations for advice and reference.

Lying-in hospitals and orphanages.—In 1929, 16 maternity homes were granted permits and 291 boarding homes for children were supervised. All such institutions are licensed by the department of health.

Midwifery.—Midwives are not recognized in this Province.

Ophthalmia neonatorum.—Physicians state on birth reports whether or not prophylactic measures against ophthalmia neonatorum have been adopted. A 1 per cent solution of silver nitrate is distributed free of charge by the department of health.

Health clinics.—During 1929, 114 dental, 2 eye, and 12 chest clinics were held, and 28,305 school children were examined.

School hygiene.—Health training in the schools is given by organizing "Little Nurses Leagues" and by first-aid courses. In 1929 there were 22 such leagues with an enrollment of 8,895 pupils. A total of 2,906 classroom talks were given.

Public-health nurses.—The provincial department of health appoints the public-health nurses and supervises their work. A report of work done daily is sent each week by each nurse to the superintendent of nurses. A public-health nurse is assigned to one or more municipalities, according to the population.

Eligibility requirements.—Each applicant for nursing service must have had at least two years' high-school education; must be a graduate of a recognized training school providing not less than a three years' course in surgical, medical, and obstetrical nursing, and must be registered or eligible for registration.

Training for nurses.—The department of health gives a review course for nurses each year and grants leaves of absence, without pay, to nurses for postgraduate work.

Publicity.—Publicity is carried on chiefly through the public-health nursing service.

Press service.—There is no organized press service.

Bulletins.—A monthly bulletin is sent to all health officers and public-health nurses and to voluntary public welfare agencies. News items of public-health interest are sent to all physicians in the Province each month through the medium of the Manitoba Medical Association bulletin.

Equipment.—The health department owns a portable exhibit.

Cooperation.—The department of health receives excellent cooperation from the Red Cross Society and the medical fraternity and enjoys the willing cooperation of the education authorities.

DIVISION OF VENEREAL DISEASE PREVENTION

In 1919 the legislative assembly passed an act concerning the prevention of venereal disease.

Personnel.—In 1930 the staff of the division of venereal disease prevention consisted of a director, who served part time and was also in charge of the Winnipeg clinic for venereal disease; a full-time assistant director; a part-time physician to render treatment to female patients under detention; and two nurses. The physician in charge of the Brandon clinic gives part-time service to the work of the division. At Le Pas, two physicians are supplied with necessary drugs and are paid according to the number of treatments given.

Clinics.—In 1929 eight clinics were operated under the supervision of the department of health.

Treatments.—During 1929, 44,676 free treatments were given.

DIVISION OF VITAL STATISTICS

Personnel.—In 1930 the division of vital statistics was under the direction of the recorder of vital statistics, who is responsible to the executive officer of the department. In addition to the recorder, the personnel consisted of two clerks and three stenographers and filing clerks.

Registration districts.—The incorporated cities, towns, villages, and rural municipalities are the primary registration districts in the Province of Manitoba.

Local registrars.—The local registrars are chosen by the municipal officers. They receive a fee of \$1 for each certificate issued. These fees are paid by the local governments, or in unorganized territory by the provincial government.

Reporting of deaths.—In 1929, 99 per cent of the deaths occurring in the Province were reported; all by physicians. Deaths must be reported to the local registrar at once and to the provincial registrar by the 7th of each month.

Legal standards.—The standard certificate and international list of the causes of death are used.

Reporting of births.—In 1929, 99 per cent of the births occurring in the Province were reported. Births must be reported to the local registrar within 10 days and to the provincial registrar by the 7th of the month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The Federal Government provides the blanks for recording the returns; the postage is free.

Unlawful deaths.—In case death is thought to be caused by unlawful means, the matter is investigated by the coroner.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the registrar of the college of physicians and surgeons; undertakers are licensed by the provincial department of health and public welfare; midwives are not licensed.

PROVINCIAL PUBLIC HEALTH LABORATORY

Personnel.—The personnel of the provincial public health laboratory consisted in 1930 of the director, who is a teacher in bacteriology in the medical school; four technicians; one cleaner; and one man in charge of the animals. The appointment of an assistant bacteriologist has been provided for.

Central laboratory.—The central laboratory is located at the medical college in Winnipeg.

Branch and private laboratories.—No branch laboratories have been established and the provincial department of health has no supervision over private laboratories.

Special laboratories.—No laboratories other than the central laboratory are maintained by the provincial department of health.

Activities.—During 1929, 27,026 examinations were made by the laboratory. The examinations included Wassermann tests, urinalyses, and examinations of diphtheria cultures. A summary of diagnostic activities is given on pages 700.

Fees.—No charge is made for any service performed by the laboratory.

Biological products.—Biological products are purchased and distributed free to all physicians and hospitals by the division of communicable diseases. A detailed analysis of the biological products issued in 1929 is given on page 701.

Research.—During 1929, the provincial bacteriologist, in collaboration with a clinician of the Winnipeg General Hospital, carried on laboratory work in connection with the treatment of chronic rheumatoid arthritis and chronic colitis by use of autogenous serums.

TABLE 298.—Total budget, provincial legislative budget for health work, and budgets by divisions, by years ¹

MANITOBA

Division	1929	1930	Division	1929	1930
Total appropriation.....	\$190,440	\$228,544	Public health nursing.....	\$91,900	\$104,210
Provincial legislative appropriation ²	190,440	212,784	Division of venereal disease prevention.....	20,500	20,500
Board of health.....	1,500	1,500	Division of vital statistics.....	17,600	14,700
Health district.....	9,000	11,400	Provincial laboratory.....	17,680	18,620
Division of communicable diseases.....	32,260	41,854			

¹ The figures for the distribution of funds by divisions are not available up to 1929.

² Exclusive of appropriations for hospitalization, child welfare, mental diseases, and charitable grants.

TABLE 299.—Total appropriations for provincial department of health, by years ¹

MANITOBA

Year	Total appropriation	Provincial legislature	Year	Total appropriation	Provincial legislature
1915.....	\$11,917	\$11,917	1923.....	\$150,331	\$150,331
1916.....	57,297	57,297	1924.....	97,897	97,897
1917.....	84,600	84,600	1925.....	91,711	91,711
1918.....	47,973	47,973	1926.....	103,216	103,216
1919.....	57,722	57,722	1927.....	104,141	104,141
1920.....	77,790	77,790	1928.....	142,518	142,518
1921.....	158,059	158,059	1929.....	190,440	190,440
1922.....	153,207	153,207	1930.....	228,544	228,544

¹ Exclusive of appropriations for hospitalization, child welfare, mental diseases, and charitable grants.

NEW BRUNSWICK

PROVINCIAL DEPARTMENT OF HEALTH

Organization.—The present provincial department of health was created by the public health act of 1919 and succeeded the former provincial board of health, a somewhat nominal organization. The official staff of the department in 1930 was composed of seven members, namely, the minister of health and labor, the chief medical officer, the chief of laboratories, and four district medical health officers. This group of officials meets to advise and consult with the minister of health. The minister of health is a member of the executive government of the Province and is appointed by the lieutenant gov-

New Brunswick - Organization of the Provincial Department of Health in 1930

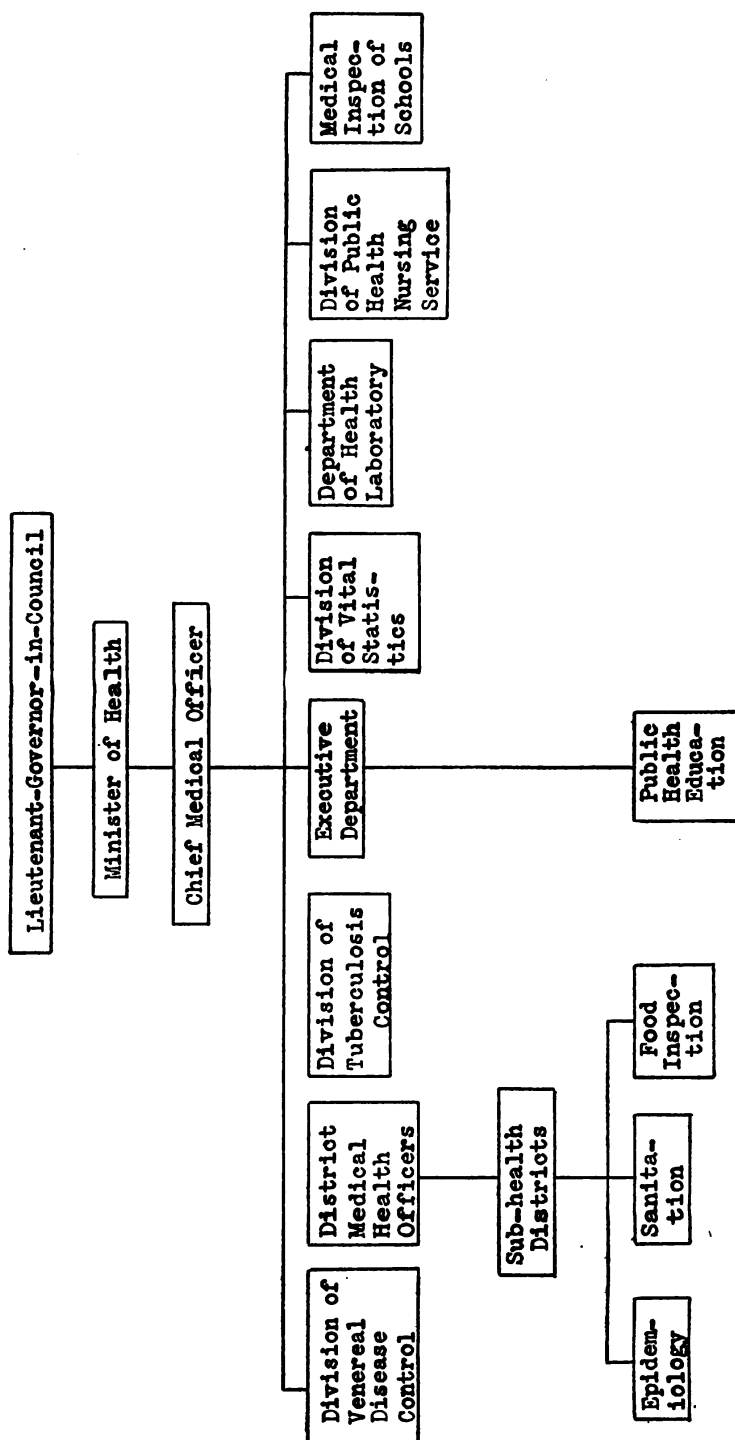


FIGURE 77

error in council. The other members of the staff are appointed by the lieutenant governor in council upon the recommendation of the minister of health.

Term of office and compensation.—The members serve during the pleasure of the government or minister of health. The minister of health receives \$3,500 a year. The salaries of the other members are fixed by the minister of health and voted yearly by the legislature. Traveling expenses of the members are paid.

Meetings.—Meetings of the staff are held quarterly on call of the chief medical officer at the direction of the minister.

EXECUTIVE OFFICER

Legal qualifications.—The chief medical officer must be a legally qualified medical practitioner and hold a diploma of public health. He is appointed by the lieutenant governor in council upon the recommendation of the minister of health. He is chosen from outside the provincial department of health and becomes a legal member thereof.

Term of office and salary.—The chief medical officer serves at the pleasure of the government. The government may serve a maximum term of five years. The chief medical officer receives a yearly salary of \$4,000, and his traveling expenses. These are provided for each year in the parliamentary budget.

POWERS OF THE PROVINCIAL DEPARTMENT OF HEALTH

Minister of health.—The minister of health is the executive head of the department of health and possesses wide powers. He delegates his executive power to the chief medical officer and together they are responsible for carrying out all laws and regulations appertaining to the public health act.

Judicial, legislative, and executive powers.—The provincial department of health has no judicial power. The department has the power to make and enforce rules and regulations through the courts concerning sanitation in general, water pollution, sewage disposal, milk supplies, food inspection, nuisances, communicable diseases, and quarantine. The control of food adulteration is a function of the Federal Government. The health department has no control over midwifery. Jurisdiction for the enforcement of the medical practice law is vested with the council of physicians and surgeons.

APPROPRIATIONS

The provincial government makes an annual appropriation to the department of health for its expenses for the current year.

TABLE 300.—Divisions of the provincial department of health in 1930 ¹

NEW BRUNSWICK

Division	Total budgets by divisions	Number or personnel	Salary of director	Salary of other personnel	Total salaries
Executive department.....	\$44,950	16	\$4,000	\$22,300	\$26,300
Division of venereal-disease control.....	10,000	² 14	⁴ 1,500	6,980	8,480
Division of tuberculosis control.....	12,500	2	3,500	3,000	6,500
Division of vital statistics.....	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Department of health laboratory.....	24,540	7	5,000	5,040	10,040
Division of public-health nursing service.....	12,850	⁷ 4	1,800	4,500	6,300
Medical inspection of schools.....	25,000	⁸ 7	(⁹)	18,000	18,000
Hospital subsidies.....	27,600	(⁹)	(⁹)	(⁹)	(⁹)

¹ Total appropriation, \$157,440; total appropriation exclusive of tuberculosis sanatoria funds, \$157,440; provincial legislative appropriation, \$157,440.

² Includes appropriation for subdistrict boards of health and vital statistics.

³ Officials included whose time is devoted to more than 1 activity.

⁴ Part-time official.

⁵ Included under executive department.

⁶ Chief medical officer is director.

⁷ Plus 7 subsidized nurses.

⁸ The chief medical officer is included.

EXECUTIVE DEPARTMENT

Personnel.—In 1930 the personnel of the central office consisted of the minister of health, who devoted only part of his time to this office, the chief medical officer, the chief clerk, a stenographer, and six clerks.

Civil service.—The employees of the department of health are civil-service appointees. A change in provincial administration does not necessarily disturb the tenure of personnel in the department.

Duties of the chief medical officer.—The duties of the chief medical officer are numerous. Under the minister of health he is administrator of the health service and exercises general direction and supervision over all phases of health work. He is advisory officer to the minister, compiles regulations subject to his approval, and in conjunction with him compiles each year the estimates of expenditure of the department for presentation to the legislature. In addition he has direct control of communicable diseases, sanitation, food, dairies, inspection, public-health education, and vital statistics; and he has supervisory control over the subdistrict boards of health, venereal disease control, provincial laboratory, medical inspection of schools, hospitals, and institutions.

Hospital grants.—There is no stable or permanent basis for the grants from the government to the various hospitals. These grants are made by the provincial legislature from year to year and may be dropped at any time.

Disbursement of funds.—Funds are disbursed through the comptroller general upon the approval of the minister of health and the chief medical officer.

Purchases.—Supplies are purchased on options of the minister and chief medical officer.

Public-health education.—The educational activities of the health department are directed by the chief medical officer.

Bulletin.—A monthly bulletin called Prevention is published by the health department.

Press service.—The provincial department of health does not have any regular press service.

Equipment.—The health department owns a stereopticon, several hundred slides, one motion-picture film, and several portable exhibits.

Cooperation.—The chief medical officer delivers lectures at the normal school, and the department of education cooperates with the health department in conducting the medical inspection of school children.

DISTRICT HEALTH WORK

Health districts.—The Province is divided into four health districts directed by a district medical health officer, who is responsible for the effective and efficient administration of the public health act and the regulations of the subdistrict board in his district. Each district medical officer is a member of the official staff of the health department and is appointed by the lieutenant governor in council upon the recommendation of the minister of health.

Subdistrict health boards.—The local health units of New Brunswick are organized on the following basis: Each county constitutes a subdistrict; each subdistrict has a board of health. The respective district medical health officer is chairman of the local board of health. One member of each subdistrict board of health is appointed by the lieutenant governor in council; the remaining members are appointed by the municipal council. Members are apportioned to the subdistrict boards of health according to the following scale: Cities and towns of 2,000 to 10,000 population may appoint 1 member in addition to the 1 appointed by the lieutenant governor in council; cities over 10,000 and under 20,000 population may appoint 2 additional members; and cities over 20,000 population may appoint 3 additional members. The subdistrict boards of health are created for the purpose of effecting a more efficient sanitary service by the employment of local officers. In 1929, 16 subdistricts were combined in the four health districts.

Supervision.—The subdistrict boards of health are authorized to enact local regulations but are subsidiary to the department of health through the district medical health officer.

Appropriations.—The local officers are paid by the subdistrict boards of health. Appropriations for subdistrict health work are made entirely by the municipalities. Approximately \$50,000 a year is appropriated, exclusive of appropriations made by the provincial government, for supervisory service.

Activities.—The subdistrict health officers are responsible for three important functions: The control of communicable diseases, sanitation, and the inspection of food.

Epidemiology.—The control of communicable diseases is directly carried on by the subdistrict boards of health under the supervision of the chief medical officer.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the department of health by the secretaries of the subdistrict boards of health.

Quarantine.—Each subdistrict board of health must appoint a competent staff of sanitary inspectors whose duty it is to report all cases of notifiable diseases, to quarantine such cases, and to disinfect at the termination of the disease. Any teacher who suspects a child of suffering from a communicable disease is directed to exclude such a child from school.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—An emergency fund may be voted by the government upon the recommendation of the minister.

Sanitation.—The control of water supplies, sewage disposal, and sanitation in general is supervised by the chief medical officer and directly exercised by the subdistrict boards.

Public water supplies and sewage-disposal systems.—All plans for the construction, alteration, or extension of public water supplies and sewage-disposal systems must be submitted to the minister for approval.

Bottled waters.—Bottled waters are under the control of the health department.

Analysis and inspection.—Public water supplies are analyzed frequently, and purification plants are inspected whenever necessary.

Ice.—No ice may be cut without a permit from the subdistrict board of health concerned. Permits are based upon the inspection and approval of the supply by the district medical health officer.

Camps and roadside water supplies.—Rules and regulations have been passed concerning the sanitary conditions of camps and roadside water supplies, which are subject to the special inspection and control of the district medical health officer and the subdistrict boards of health.

Swimming pools.—No legislation has been passed concerning swimming pools.

Food inspection.—Food inspection is supervised by the chief medical officer and is directly exercised by the subdistrict boards through local sanitary officers. No person is permitted to sell or offer for sale food which is damaged or adulterated.

Food handlers.—The medical examination of food handlers is required. This law is enforced by the subdistrict boards of health.

Hotels, etc.—Permits are required to operate places where food is handled.

Slaughterhouses and cold-storage warehouses.—Slaughterhouses and cold-storage warehouses are inspected by the subdistrict boards of health.

Shellfish.—No legislation concerning the prevention of the pollution of shellfish has been passed as yet.

Milk supplies.—The health department and the subdistrict boards of health have control over the milk supplies and dairies in the Province. Samples of milk and cream are examined by the provincial laboratories. Dairies are licensed by the subdistrict boards of health.

DIVISION OF VENEREAL-DISEASE CONTROL

The first appropriation for the work of the division of venereal-disease control was made through the executive department in 1920.

Personnel.—In 1930 the staff of the division of venereal-disease control consisted of a part-time director, two nurses, a part-time orderly, and 10 surgeons who devoted part time to the clinics.

Program.—According to the public health act, venereal diseases are notifiable. Treatment is compulsory until the patient has recovered or is noninfectious. The department of health holds meetings and distributes literature in carrying on its campaign against the diseases.

Clinics.—In 1929, 11 venereal-disease clinics were conducted.

Treatments.—A total of 14,985 free treatments was administered during that year.

DIVISION OF TUBERCULOSIS CONTROL

Personnel.—During 1930 two traveling tuberculosis diagnosticians, directed by the chief medical officer, carried on tuberculosis-control activities.

Clinics.—Regular clinics have been established in Moncton and St. John under the supervision of the health department.

Sanatorium.—A tuberculosis sanatorium with a capacity of 140 beds is conducted by the provincial government.

County sanatorium.—A county sanatorium with a capacity of 200 beds is maintained by St. John City and County. The provincial government aids, to the extent of approximately \$50,000 yearly, by paying \$1 per day for each patient. Patients from other subdistricts are admitted to this sanatorium when beds are available. In addition, arrangements have been made with the St. John County Hospital for admission of patients who have no domicile in the Province. The department of health pays \$2.71 per day for such patients.

DIVISION OF VITAL STATISTICS

Personnel.—The chief medical officer is the registrar general of vital statistics, and the work of this division is carried on by the executive department.

Registration districts.—The cities, towns, incorporated villages, or parishes constitute the primary registration districts of the Province.

Local registrars.—The local registrars are chosen by the subdistrict board of health, which pays them a fixed salary varying from \$10 to \$150 yearly.

Reporting of deaths.—In 1929, 95 to 98 per cent of the deaths occurring in the Province were reported; of these, 75 per cent were reported by physicians and 25 per cent by undertakers. In towns and cities deaths must be reported to the local registrar before burial and in rural sections within 30 days. Deaths must be reported to the registrar general by the 2d of each month.

Legal standards.—The standard certificate and international list of the causes of death have been adopted.

Reporting of births.—In 1929, 95 per cent of the births occurring in the Province were reported; of these, 75 per cent were reported by physicians and 25 per cent by midwives. Births must be reported to the local registrar within 10 days and to the registrar general by the 2d of each month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The Federal bureau of statistics provides the blanks for recording the returns, and the postage is free.

Unlawful death.—In case death is suspected to be caused by unlawful means, the coroner is notified, and a burial permit is refused until permission is obtained from him.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the Council of Physicians and Surgeons; embalmers are licensed by the embalmers' examining board of the executive department; midwives and undertakers are not licensed.

DEPARTMENT OF HEALTH LABORATORY

Personnel.—In 1930 the staff of the health laboratory consisted of the chief, a clerk, a technician, six assistants, and a caretaker.

Central laboratory.—The central laboratory is located at the General Public Hospital in St. John.

Branch laboratories.—No branch laboratories have been established as yet.

Private laboratories.—Moncton Hospital and Hotel Dieu Hospital of Campbellton have established laboratories for routine examinations;

all pathological and serological examinations are submitted to the central laboratory.

Special laboratory.—No laboratories other than the central laboratory have been established by the provincial department of health.

Activities.—During 1929, 17,953 examinations were made by the laboratory. The greater number of examinations were Wassermann and Kahn tests and uranalyses. A summary of diagnostic activities in 1929 is given on page 700.

Fees.—Fees are charged for animal inoculations, uranalyses, blood chemistry examinations, and pathological sections. All examinations are free for those who are unable to pay. The Provincial Hospital, St. John County Hospital, and the General Public Hospital pay sums of \$1,000 yearly to the department laboratory for all the work done, the General Public Hospital charging in addition a flat rate of \$5 for each private patient to cover the cost of all laboratory examinations for such patient. The subdistrict board of health of St. John City and County pays the sum of \$1,000 yearly for milk and water examinations.

Biological products.—Biological products are not manufactured but are distributed free by the department laboratory. A detailed summary of the biologicals issued during 1929 is given on page 701.

DIVISION OF PUBLIC-HEALTH NURSING SERVICE

Personnel.—In 1930 the director of the division of public-health nursing service was assisted by 3 nurses paid by the department of health, 3 nurses paid by the St. John subdistrict board of health, and 7 subsidized nurses.

Prenatal clinics.—As yet no prenatal clinics have been established, and very little prenatal work is carried on.

Midwifery.—No instruction or supervision is given to midwives.

Ophthalmia neonatorum.—The use of a silver-nitrate solution in the eyes of the new born is obligatory.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are not licensed.

Infant and preschool hygiene.—No infant and preschool clinics have been established by this division. Clinics are held in health centers at St. John, Moncton, Fredericton, and Campbellton by local authorities.

Eligibility requirements.—A public-health nurse must be a registered nurse from a reputable training school and with at least one year's training in public-health work under similar auspices.

MEDICAL INSPECTION OF SCHOOLS

Personnel.—The activities connected with the medical inspection of schools are supervised by the chief medical officer. The Province has been divided into six areas for this work. In 1929 six (one for

each area) medical inspectors were paid by the department of health and devoted full time to the work of school inspection.

Activities.—According to law, each school child must be examined yearly or half yearly for communicable diseases, defects, or deformities. Parents are notified of the defects found. All children must be successfully vaccinated before being admitted to school.

Clinics.—Medical inspection of school children has been held in various localities throughout the Province. They have been partially financed by the various local organizations.

Mental hygiene.—In cities and towns where the number of children afflicted with mental incapacity or insufficiency amounts to 12 or more, a separate school or schools for such children, with specially and appropriately qualified teachers, must be provided by the school authorities. In accordance with this regulation, 12 classes have been established. The department of health has contributed one-third toward the expense of special training for teachers of mentally defective children, and the department of education pays an additional yearly salary of \$100 to such teachers. A census of the mentally defective has been completed by the medical inspectors of schools with full particulars of each person. They number in all 1,821 children and are divided as to degrees of defectiveness.

TABLE 301.—Total budget, provincial legislative budget for health work, and budgets by divisions, by years

NEW BRUNSWICK

Division	1918	1919	1920	1921	1922	1923	1924
Total budget.....	\$25,080	\$27,228	\$36,505	\$52,181	\$79,708	\$111,389	\$117,638
Provincial legislative budget.....	25,080	27,228	36,505	51,533	67,693	78,248	83,747
Executive department.....	2,977	11,083	13,217	17,443	18,304	12,952	23,405
Division of subdistrict health work.....	5,791	8,033	9,717	14,273	11,290	10,733	12,125
Division of vital statistics.....	15	279	59	47	1,750	1,280	1,950
Department of health laboratory.....	5,696	7,803	10,845	11,475	15,198	13,835	16,891
Medical inspection of schools.....	—	5	44	742	2,154	28,346	25,770
Division of public-health nursing service.....	—	—	2,345	14,231	5,099	14,267	15,182
Division of tuberculosis control.....	—	—	109	—	27	19	50
Division of venereal-disease control.....	—	—	168	4,146	7,184	13,250	12,742
Hospital subsidy.....	—	—	—	441	17,000	17,600	19,259

Division	1925	1926	1927	1928	1929	1930
Total budget.....	\$120,636	\$108,529	\$123,823	\$123,720	\$156,435	\$157,440
Provincial legislative budget.....	106,623	102,026	111,070	111,635	146,340	157,440
Executive department.....	20,755	23,903	29,263	30,913	31,619	44,950
Division of subdistrict health work.....	12,150	9,500	9,500	12,500	12,500	(⁶)
Division of vital statistics.....	2,475	(⁶)	(⁶)	(⁶)	(⁶)	(⁶)
Department of health laboratory.....	16,716	15,650	18,576	18,469	23,994	24,540
Medical inspection of schools.....	25,138	22,519	24,396	25,906	24,847	25,000
Division of public-health nursing service.....	14,888	1,800	1,950	2,556	10,414	12,850
Division of tuberculosis control.....	6,050	3,780	5,441	5,474	12,226	12,500
Division of venereal-disease control.....	14,523	11,324	10,509	12,047	11,489	10,000
Hospital subsidy.....	18,050	20,053	24,188	15,855	29,346	27,600

¹ Red Cross funds included. (See Table 302.)

² Rockefeller Foundation funds included. (See Table 302.)

³ Dominion Government funds included. (See Table 302.)

⁴ Canadian Tuberculosis Association funds included. (See Table 302.)

⁵ Moncton Hospital funds included. (See Table 302.)

⁶ Under central administration.

TABLE 302.—Total appropriations for provincial department of health, by years
NEW BRUNSWICK

Year	Total appropriation	Source of funds and amounts				
		Provincial legislature	Canadian Tuberculosis Association	Moncton Hospital	Dominion Government appropriation for venereal diseases	Rockefeller Foundation
1918.....	\$25,080	\$25,080				
1919.....	27,228	27,228				
1920.....	36,605	36,605				
1921.....	52,181	51,633				\$648
1922.....	79,708	67,693			\$7,084	\$578
1923.....	111,389	73,248			7,951	25,190
1924.....	117,638	83,747			6,710	24,681
1925.....	120,636	106,623	\$1,000	\$700	5,967	4,104
1926.....	108,529	102,026			5,083	
1927.....	123,823	111,070			5,083	
1928.....	123,720	111,635			4,287	
1929.....	156,435	146,340			4,287	
1930.....	157,440	157,440				

NOVA SCOTIA

PROVINCIAL DEPARTMENT OF PUBLIC HEALTH

Organization.—There is no board of health in this Province. The provincial department of public health is a department under the minister of natural resources.

EXECUTIVE OFFICER

Legal qualifications.—The provincial health officer must be a qualified medical practitioner and is appointed by the governor in council.

Term of office and salary.—The executive officer holds office during the pleasure of the government and receives a salary of \$4,000 and traveling expenses.

POWERS OF THE PROVINCIAL DEPARTMENT OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—The provincial department of health has no judicial power. It is authorized to make and enforce rules and regulations concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine (maritime quarantine excepted). Milk supplies are controlled through local ordinance. Food adulteration is under the jurisdiction of the Federal Government. The provincial department of health has no control over midwifery, and the enforcement of the medical practice law is a function of the provincial medical board.

APPROPRIATIONS

The provincial legislature makes an annual appropriation to the provincial department of health.

Nova Scotia - Organization of the Provincial Department of Health in 1930

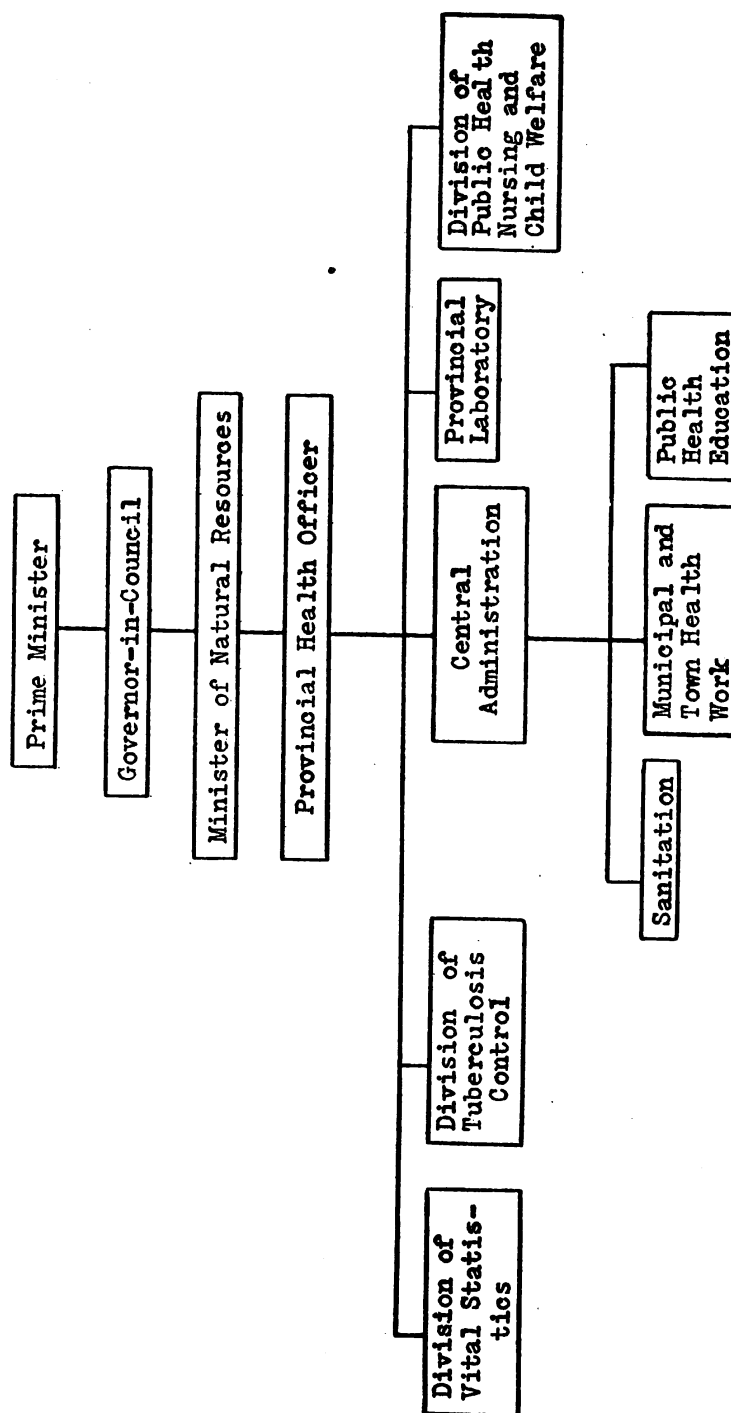


FIGURE 78

CENTRAL ADMINISTRATION

Personnel.—The staff of the central office in 1930 was composed of the provincial health officer and two divisional health officers.

Civil service.—The employees of the provincial department of health are not under civil service. A change in provincial administration does not affect the tenure of personnel in the department.

Duties of the provincial health officer.—In addition to his duties as executive officer of the department of health, the provincial health officer is also the deputy registrar and the inspector of humane and penal institutions.

Disbursement of funds.—Funds are disbursed through the provincial cashier upon the approval of the provincial health officer.

Purchases.—All purchases are made on requisition after contract.

Municipal or town health work.—Every municipal council is authorized to appoint a medical health officer. In 1929 there were about 65 medical health officers. They received salaries which ranged from \$100 to \$2,500 a year, none of which were paid by the provincial department of health.

Supervision.—The medical health officers are required to enforce the health rules and regulations passed by the provincial department of health and to make such reports as are required.

Public water supplies and sewage-disposal systems.—Activities concerned with sanitation are carried on by the central office. Plans for the construction, alteration, or extension of public water supplies and sewage-disposal systems must be submitted to the provincial department of health for approval.

Analysis and inspection.—It was not stated as to when analyses of public water supplies are made. Water-purification plants are inspected from time to time.

Ice.—Ice must be taken from a satisfactory source.

Camp grounds.—The legislature has passed rules and regulations concerning the sanitation of camp grounds.

Swimming pools and roadside water supplies.—Rules and regulations are in the process of being formed by the provincial department of health concerning the sanitary conditions of swimming pools and roadside water supplies.

Publicity.—Publicity activities are directed by the provincial health officer.

Press service.—Regular and special articles are sent to the press.

Bulletin.—A monthly bulletin is published, and from time to time special bulletins are issued.

Equipment.—The provincial department of health owns a stereopticon, 500 slides, an attractoscope, a motion-picture machine and 6 films and exhibits for display at county fairs.

Lectures.—Radio talks are given from time to time by members of the department.

Cooperation.—Lectures are given also at the normal school, teachers' meetings, and women's institutes by members of the health department.

Communicable diseases.—The division of communicable diseases is an activity under the jurisdiction of the minister of public works and mines and not a function of the health department.

Reporting of diseases.—The medical health officers report cases of communicable diseases weekly to the provincial department of health.

Quarantine.—Quarantine measures are controlled by local authorities.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—There is no emergency fund allotted to the health department, but the governor in council can provide funds in case of an epidemic.

Venereal disease.—The control of venereal diseases is a function of the division of communicable diseases. Every person infected with venereal disease must place himself under the care and treatment of a qualified medical practitioner. The penalty for noncompliance with this regulation is a fine of not less than \$25 and not more than \$100.

Clinics.—Five free clinics have been established. The number of patients and treatments administered in 1929 was not stated. Arrangements are made with local physicians for the free treatment of patients who are beyond the reach of the clinics, and patients who are too ill to attend clinics are admitted free to hospitals.

DIVISION OF TUBERCULOSIS CONTROL

Personnel.—Two divisional medical health officers included with the personnel of the central office were in charge of the division of tuberculosis control in 1930.

Appropriation.—Authority has been received for the expenditure of \$10,000 per year, for three years, beyond the amount of the regular budget. This is not the additional \$10,000 called for under the laboratory expansion, although it will include some of that appropriation.

Sanatoria.—A provincial sanatorium with a capacity of 300 beds is maintained by the department of works and mines. In addition to the expenses incurred by the provincial department of health for tuberculosis control the Province paid for the maintenance of patients in the sanatorium in 1929. There is one county sanatorium with 75 beds for tuberculous patients.

Clinics.—A total of 125 diagnostic clinics was conducted by the health department in 1929 and 1,404 patients were treated.

DIVISION OF VITAL STATISTICS

Personnel.—Up to August, 1925, the department of vital statistics was a separate department under the minister of natural resources. The provincial health officer is the deputy registrar general.

Registration districts.—The primary registration district in the Province is the county subdivision.

Local registrars.—The local registrars are appointed by the governor in council. They are paid 40 cents per record by the municipality or town.

Reporting of deaths.—The completeness of the reporting of deaths in 1929 was approximately 90 per cent, of which 98 per cent were reported by physicians and undertakers. Deaths are reported to the local registrar at once and to the deputy registrar general by the 7th of each month.

Legal standards.—The standard certificate and the international list of the causes of death are used in the Province.

Reporting of births.—In 1929 the completeness of the reporting of births was 85 per cent, of which 85 per cent were reported by physicians, nurses, and midwives. Births must be reported to the local registrar within 24 hours and to the deputy registrar general by the 7th of the month.

Stillbirths.—Stillbirths are reported as births and deaths.

Blanks and postage.—The department of vital statistics supplies the blanks for recording the returns, and postage is franked.

Unlawful death.—In case death is thought to be caused by unlawful means, the matter is reported to the attorney general.

Burial permits.—Burial permits are necessary and are issued by the local registrars.

Licensing.—Physicians are licensed by the provincial medical board and undertakers by the provincial undertakers' association. In Halifax midwives are licensed by the medical board.

PROVINCIAL LABORATORY

Personnel.—The staff of the provincial laboratory in 1930 consisted of the director, a technician, and three assistant technicians.

Central laboratory.—Until 1926 the laboratory work in which the provincial department of health was interested was carried on wholly at the provincial hospital. The department now entirely controls the public-health laboratory. The central laboratory is located in the pathological building located on the campus of Dalhousie University.

Branch and private laboratories.—No branch laboratories have been established. The health department has no supervision over private laboratories in the Province.

Special laboratories.—No laboratories other than the central laboratory have been established by the provincial department of health.

Activities.—During 1929, 12,198 examinations were performed by the laboratory, which included Wassermann tests, analyses of milk, analyses of tuberculosis sputa, and urinalyses. A summary of diagnostic activities was not given.

Fees.—No charge is made for any service performed by the laboratory.

Biological products.—Biological products are purchased and distributed to physicians, druggists, and local boards of health through the central office. Biologicals are free for indigents. A list of the biologicals issued during 1929 was not given.

DIVISION OF PUBLIC HEALTH NURSING SERVICE AND CHILD WELFARE

Personnel.—The personnel of the public-health nursing service in 1930 included the superintendent and three county nurses.

Prenatal and infant clinics.—No prenatal or infant clinics are conducted by this division. County clinics are carried on with the assistance of the provincial nurses.

Lying-in hospitals and orphanages.—One maternity hospital is recognized and is given financial assistance by the Province. Most of the maternity work is done in local hospitals. All local hospitals receive provincial aid and almost all accept maternity cases. Orphanages are not licensed by the provincial department of health.

Midwifery.—No supervision or instruction is given to midwives. In Halifax midwives are licensed by the medical board.

Ophthalmia neonatorum.—Cases of ophthalmia neonatorum must be reported to the local board of health and silver nitrate must be used. A penalty of not less than \$25 and not more than \$100 is required in default of such notification.

School hygiene.—The medical examination of school children is carried on by county nurses, who refer all doubtful cases to physicians. In indigent cases a charitable organization usually finances the work.

Eligibility requirements.—A public health nurse must be a graduate and have special training in public health.

Number of nurses.—Four nurses are employed by the provincial health department. The salaries of two of these nurses are paid in the first instance by the Province. The amount is then charged back to the counties concerned. In addition there are 53 public-health nurses employed by counties, towns, school boards, or private organizations.

TABLE 303.—*Total budget, provincial legislative budget for health work, and budgets by divisions, by years*¹

NOVA SCOTIA

Division	1918	1919	1920	1921	1922	1923	1924	1925
Total budget.....	\$12,961	\$14,532	\$25,871	\$43,281	\$64,168	\$53,228	\$57,978	\$66,800
Provincial legislative budget.....	12,961	14,532	22,151	18,472	36,984	35,432	35,109	50,321
Central administration.....	6,783	8,202	14,630	32,044	10,394	8,143	10,479	9,051
Division of communicable diseases ²					14,800	14,461	16,926	20,891
Division of tuberculosis control.....					3,000	3,551	4,385	4,520
Division of public-health nursing and child welfare.....					25,428	16,479	13,810	11,291
Provincial laboratory ³								10,000
Division of vital statistics ⁴								11,048

¹ Data not available after 1925.² Dominion Government funds included. (See Table 304.)³ Local funds included. (See Table 304.)⁴ Not a division of the public health department; under the Minister of Public Works and Mines.⁵ Previous to 1925 expenses borne by provincial hospital.⁶ Previous to 1925 vital statistics was not a division of the health department.TABLE 304.—*Total appropriations for provincial department of health, by years*¹

NOVA SCOTIA

Year	Total appropriation	Source of funds and amounts		
		Provincial legislature	Municipalities	Dominion Government
1918.....	\$12,961	\$12,961		
1919.....	14,532	14,532		
1920.....	25,871	22,151		\$3,720
1921.....	43,281	18,472	\$14,235	10,574
1922.....	64,168	36,984	16,610	10,574
1923.....	53,228	35,432	7,222	10,574
1924.....	57,978	35,109	12,125	10,774
1925.....	66,800	50,321	9,115	7,364

¹ Data not available after 1925.

ONTARIO

PROVINCIAL DEPARTMENT OF HEALTH

Organization.—In 1927 the provincial board of health was abolished and the department of health was created. The minister of health assisted by the deputy minister is in charge of the department.

EXECUTIVE OFFICER

Legal qualifications.—The minister of health is the executive officer of the provincial department of health. There are no legal qualifications for this office. He is chosen from the members of parliament and appointed as the head of the department of health by the prime minister.

Term of office and compensation.—The minister of health serves during his membership in the executive council. The statutory period of the government is four years. He receives a yearly salary

Ontario - Organization of the Provincial Department of Health in 1930

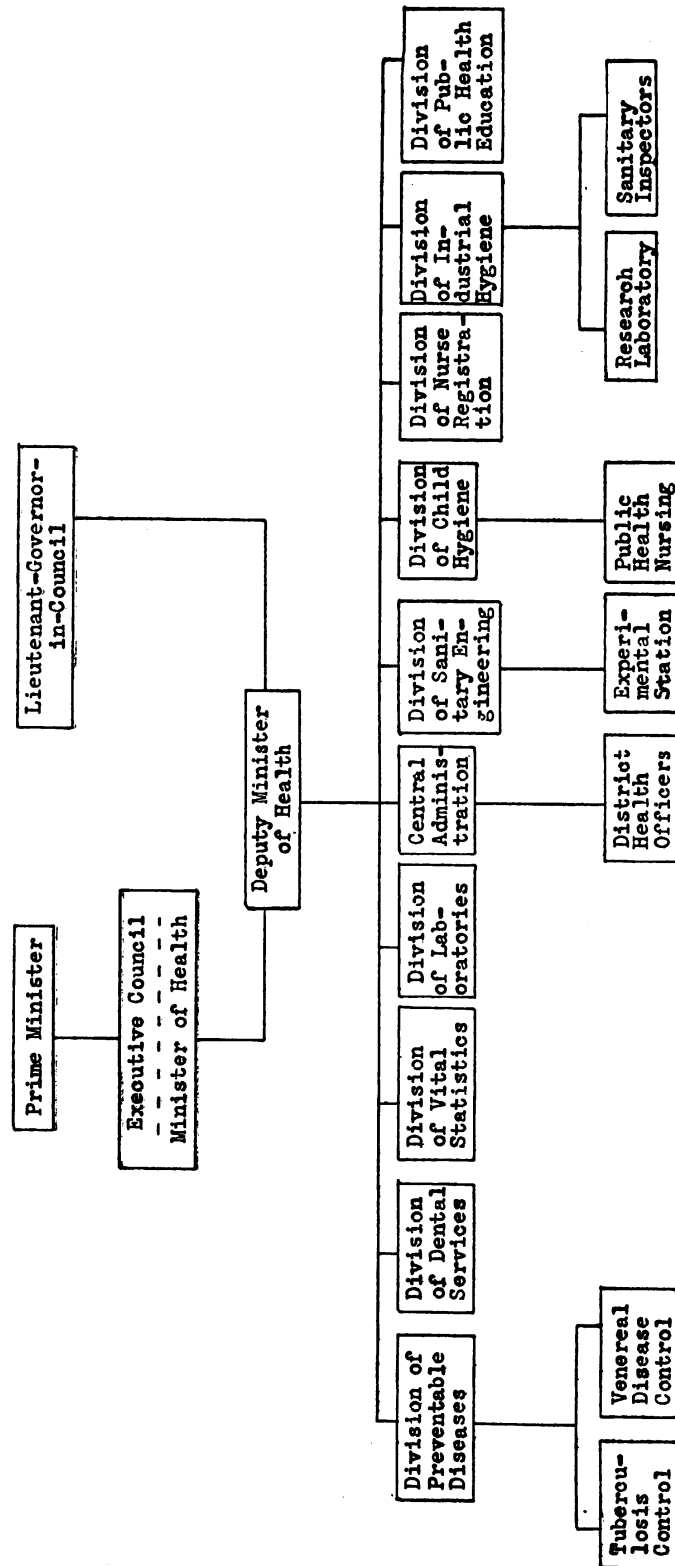


FIGURE 79

of \$8,000 and an additional \$2,000 as sessional indemnity. Necessary traveling expenses are paid.

Legal qualifications for deputy minister.—The deputy minister of health, who is appointed by the lieutenant governor in council, must be a legally qualified medical practitioner.

Term of office and compensation of deputy minister.—The deputy minister serves during the pleasure of the government and receives a yearly salary of \$6,000 and actual traveling expenses.

POWERS OF THE PROVINCIAL DEPARTMENT OF HEALTH

Judicial, legislative, and executive powers.—The provincial department of health is charged with the administration and enforcement of all statutes relating to the protection of the health of the people in the Province and the initiation of legislation for the promotion of health. The health department has no judicial power. Legislative power rests entirely with the provincial legislature. The provincial department of health is empowered by the public health act to pass regulations, which must be approved by the executive council. The provincial department of health has executive power concerning sanitation in general, water pollution, sewage disposal, communicable diseases, and in unorganized sections the control of nuisances and quarantine. Milk supplies are controlled by the department of agriculture. Enforcement of the medical practice law is a function of the College of Physicians and Surgeons. Midwives are not recognized. The prevention of the adulteration of food for export is an activity of the Federal Government, that for local consumption is subject to inspection by the local health authorities. No department of the provincial government is charged with food inspection.

APPROPRIATIONS

The provincial government makes an appropriation each year allotted by divisions to the health department.

TABLE 305.—*Divisions of the provincial department of health in 1930*¹
ONTARIO

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Central administration.....	\$46,325	12	\$6,000	\$20,825	\$26,825
Health districts.....	44,300	8			32,000
Division of preventable diseases.....	318,400	10	4,200	16,200	20,400
Division of dental services.....	14,000	1	4,000		4,000
Division of vital statistics.....	63,000	37	2,500	44,900	47,400
Division of laboratories:					
Central laboratory.....	66,550	26	4,000	40,550	44,550
Branch laboratories.....	42,275	12	11,850	10,825	22,675
Division of sanitary engineering.....	48,700	13	4,000	24,700	28,700
Division of child hygiene.....	76,150	22	4,400	32,750	37,150
Division of nurse registration.....	9,050	5	2,700	4,550	7,250
Division of public-health education.....	35,400	4	2,400	5,000	7,400
Division of industrial hygiene.....	43,300	11	4,400	24,700	28,700

¹ Total appropriation, \$807,450; total appropriation exclusive of tuberculosis sanatoria funds, \$807,450; provincial legislative appropriation, \$807,450.

² Total salaries for 4 directors.

CENTRAL ADMINISTRATION

Personnel.—The deputy minister of health directs the work of the various divisions. In 1930 he was assisted by the chief inspector of health, an accountant, seven clerks, and two stenographers.

Civil service.—The employees of the department of health are civil service appointees. A change in provincial administration does not affect the tenure of personnel in the department.

Disbursement of funds.—Funds are disbursed on departmental requisitions signed by the minister of health and the deputy minister. The provincial treasurer is the disbursing agent.

Purchases.—Equipment is purchased through the department of public works; office supplies are purchased directly by the health department.

Local health work.—The Province has various units; i. e., counties and districts, cities, towns, townships, and villages. There are 900 organized municipalities in the Province and many unorganized municipalities, mostly in the northern section. The organized municipalities are obliged, under the public health act, to appoint a local board of health, the executive officer of which is the medical health officer. The Province is divided into eight health districts, over each of which a district health officer presides. He supervises the local health work except in cities of 50,000 and over. In the unorganized sections of the Province the officers of the provincial department of health have direct supervision of the public health.

Supervision.—The provincial department of health acts in an advisory and supervisory capacity toward the local health organizations. It may, however, take action in emergencies or upon the failure of the local board of health to act.

DIVISION OF PREVENTABLE DISEASES

Personnel.—The personnel of the division of preventable diseases in 1930 consisted of a director, four clinical specialists, two public health nurses and four stenographers.

Reporting of diseases.—Cases of communicable diseases are reported weekly to the provincial department of health by the secretaries of the local boards of health.

Quarantine.—Quarantine is controlled by the local boards of health. The officers of the provincial department of health take charge of quarantine measures in districts without municipal organization.

Smallpox vaccination.—Infant vaccination is required by law. Revaccination may be ordered when an outbreak is anticipated by the local board of health. This may apply to the whole population within the municipality or, as is generally the case, to school children only.

Emergency fund.—An emergency fund is provided for use in the case of a severe or extensive outbreak.

Biological products.—Biological products are distributed and immunization work is carried on by the division of preventable diseases.

Tuberculosis-control work.—The control of tuberculosis is an activity of the division of preventable diseases. The provincial department of health provides free laboratory service and a traveling chest clinic, which goes to various parts of the province at the request of the local municipality for consultation in connection with pulmonary tuberculosis or other diseases of the chest. The purpose of this clinic is to bring to the settler in the farthest outpost of the Province the advantages of a big city in health protection in so far as it is possible.

Chest clinic.—The traveling chest clinics are conducted by physicians, specially trained in tuberculosis work, with the assistance of a nurse. The equipment includes a portable X-ray machine. In 1929, 1,549 patients were examined. The department of health has organized centers which the traveling diagnostic chest clinic visits regularly at intervals of six months to a year. The direct organization is under the local health association. A total of 125 clinics has been conducted and 8,065 patients examined since the organization of this work.

Municipal tuberculosis clinics.—Tuberculosis clinics are maintained in 17 centers, some of which receive out-patient grants from the municipality.

Sanatoria.—Six sanatoria with a total capacity of 1,822 beds are conducted under private auspices. Grants are made by the provincial secretary's department to these six sanatoria under the following two heads: Initial grant toward site; maintenance grant (75 cents per diem) for all patients other than private ones. A municipal grant of \$1.50 per day per patient is also given. There are also four county sanatoria with a total capacity of 326 beds. The total number of 2,148 beds available for tuberculous patients gives a rate of nearly nine beds for each 100,000 of the population. The provincial department of health provides for the treatment in these sanatoria of indigent patients from unorganized territory.

Tuberculosis-nursing service.—Tuberculosis-nursing service is included in the general public health work of the nurses on the staff of the provincial health department.

Venereal-disease control.—The control of venereal diseases is also an activity of the division of preventable diseases. Reporting, examination, and treatment are compulsory. For this work the provincial health department distributes free antisypilitic products and provides free laboratory examinations in non-clinic centers.

Clinics.—Twenty four clinics are under the supervision of the provincial department of health which makes the following grants toward their support:

Equipment, medical and nursing service (initial grant).....	\$1, 000
Medical director (yearly grant).....	500
Each assistant director (yearly grant).....	250
Social service nurse (yearly grant).....	500

Maintenance grants of 50 cents per treatment are made also by the provincial department of health. The Federal Government makes yearly grants to the provincial health department. Of the 24 venereal disease clinics, 18 are directly controlled and operated by the provincial department of health and 6 are in reformatory institutions under its supervision. The capacity is unlimited.

Treatment.—In 1929, 111,614 treatments were given in the venereal disease clinics and 16,894 in the provincial reformatory institutions, making a total of 128,608 free treatments.

Venereal-disease nursing service.—The social service nurse supervises the work of the venereal-disease clinics, assists the clinic nurses in work of rehabilitation and general health education, attempts to reach nurses in training in the Province, and cooperates with the voluntary agencies.

DIVISION OF DENTAL SERVICES

Personnel.—In 1930 the director of the division of dental services was unassisted. The voluntary assistance of the members of the dental profession enables the department to accomplish a large amount of work without adding greatly to the staff.

Activities.—The activities of the division of dental services are divided into (1) dental health educational efforts, and (2) the organization and supervision of various kinds of clinics.

Educational activities.—The primary duties of the division of dental services are concerned with the prevention of dental diseases and are therefore educational. Appreciating the value of the teacher in this field, an effort has been made to reach this group, first, by lectures given in each teacher-training school in the Province; and second, through the local dentists engaged in this service. School and public-health nurses are kept informed in regard to modern dental methods. The educational work has been extended to the high schools and collegiate institutes and to some extent to workers in industries. The division uses all efficient methods of publicity to bring the story of better mouth health to the people. Radio broadcasting, newspaper articles, motion and still pictures, plays, essay contests, public addresses, and exhibits at fairs are used in a general campaign. The department has the support of the dental profession

and much of the work, especially survey work, is done gratuitously by the dentists.

Dental clinics.—The division assists in the organization of public dental services in the organized districts of the Province. Grants ranging from 7½ to 30 per cent of the cost of the service are given by the division to school boards and boards of health willing to establish a school clinic. The majority of the larger municipalities in Ontario have well-managed school dental services. This work is being extended to the rural areas. Dental departments in hospitals are quite usual. In the unorganized parts of Ontario and in the sparsely settled districts the government accepts full responsibility in providing dental treatment for the indigent. Four traveling dentists were scheduled to work in northern Ontario during the summer months of 1930.

DIVISION OF VITAL STATISTICS

Personnel.—The division of vital statistics was transferred from the provincial secretary's department to the provincial health department in May, 1925. The personnel of the division consisted in 1930 of a director and 36 clerks.

Registration districts.—The Province is divided into organized cities, towns, townships, and villages.

Local registrars.—The local registrars are appointed by the municipal council. Where there is no municipal organization, the department of health makes the appointment. The registrars are paid a fee of 25 cents for each record issued except in cities of 10,000 population or over where arrangement may be made for a stated salary. The municipalities pay the municipal registrars; the provincial department of health pays the fees in unorganized districts.

Reporting of deaths.—Ninety-nine per cent of the deaths occurring in the Province are reported; of these, 90 per cent are reported by physicians and undertakers and 10 per cent by others. Deaths are reported to the local registrar within 24 hours and to the provincial registrar monthly.

Legal standards.—The standard certificate and the international list of the causes of death have been adopted.

Reporting of births.—From 90 to 95 per cent of the births occurring in the Province are reported; of these, 75 per cent are reported by physicians and 25 per cent by others. Births are reported to the local registrars within 30 days and to the provincial registrar monthly.

Stillbirths.—Stillbirths are recorded as births and deaths but are not recognized statistically.

Blanks and postage.—The provincial department supplies the blanks for recording the returns and the postage is franked.

Unlawful death.—In case death is thought to be caused by unlawful means, the death certificate must be signed by the coroner.

Burial permits.—Burial permits are necessary and are issued by the division registrar.

Licensing.—Physicians are licensed by the college of physicians and surgeons. Undertakers are licensed by the department of health, but they have no legal status in vital statistics. Midwives are not legally recognized.

DIVISION OF LABORATORIES

Personnel.—In 1930 the staff of the division of laboratories was as follows:

CENTRAL LABORATORY

	Tem- porary	Perma- nent	Range of salary
Director.....		1	\$4,000
Stenographers and clerks.....	4	6	\$900-1,300
Technicians.....	7	19	1,050-1,800
Bacteriologist.....	1		1,900-2,100

SEVEN BRANCH LABORATORIES

Directors ¹	1	3	\$2,800-3,150
Stenographers.....		3	975-1,050
Technicians.....	1	6	1,300-1,500

¹ In 3 branch laboratories the department is not responsible for the director's salary.

The central laboratory is located in the building of the provincial department of health.

Branch laboratories.—The seven branch laboratories are located at London, Kingston, Ottawa, Peterboro, North Bay, Sault Ste. Marie, and Fort William. The laboratories at London and Kingston are those of the Western and Queen's Universities, respectively. The provincial health department makes an annual grant of \$2,100 to the two laboratories. The remaining five laboratories are financed by special agreement with the local authorities, whereby the local authorities supply the building, water, heat, light, and janitor service and the provincial department of health pays the salaries and cost of equipment.

Private laboratories.—The provincial department has no supervision over private laboratories.

Special laboratories.—The department of health maintains a laboratory under the division of industrial hygiene for the scientific investigation of laboratory problems associated with industrial hygiene. This laboratory is located in the building of the department of health. The department of health also maintains an experimental station for sewage and water investigation under the division of sanitary engineering.

Activities.—During 1929, 208,772 examinations were made by the laboratories. These included principally venereal disease examinations, milk and water analyses, examinations of tuberculosis sputa and of diphtheria cultures. A summary of diagnostic activities is given on page 700.

Fees.—No fee is charged by the central laboratory.

Biological products.—Typhoid and paratyphoid vaccine, silver-nitrate ampules, pertussis and autogenous vaccines are prepared by the division of laboratories. Other vaccines and sera are purchased. All biologicals are distributed free of charge through the division of preventable diseases. A summary of the amounts issued in 1929 is given on page 701.

Research.—Some research was carried on in 1929 concerning outbreaks of food poisoning, focal infection, agglutination (*B. abortus*), and the comparison of the reductase with the agar plate for bacterial counts on milk.

DIVISION OF SANITARY ENGINEERING

Personnel.—The staff of the division of sanitary engineering consisted in 1930 of a director; a chemist in charge of the experimental station; six assistant engineers, six assistant chemists, four of whom were temporary; a laboratory attendant; and five clerks, two of whom were temporary.

Public water supplies.—The installation of new water systems or the extension of existing systems require the approval of the provincial department of health. The provincial department of health has supervision over all sources of public water supplies, with power to make examinations and to control the sanitary conditions of watershed areas. It also has power to demand returns from companies or municipalities operating waterworks systems and to issue a mandatory order for the installation, extension, or improvement to waterworks systems.

Analysis and inspection.—Public water supplies are generally analyzed weekly. Water-purification plants are inspected about three or four times a year, or oftener should more frequent inspection seem necessary.

Ice industry.—The provincial department of health has the power to issue regulations for the supply of ice sold within the municipalities. Local boards of health may issue permits for cutting ice and may prohibit the bringing in or sale of ice within the municipalities.

Sewage-disposal systems.—The installation of new sewage-disposal systems or extension of existing systems requires the approval of the provincial department of health. The department has the power to demand returns from municipal corporations operating sewerage systems, to issue a mandatory order for the installation or the extension.

sion to sewerage systems, and to permit a municipality to carry its sewage-disposal works or system into or through an adjoining municipality.

Tourist camps.—Certificates of approval are issued to tourist camps meeting the minimum standards set by the department of health. No penalty is imposed upon those below this standard.

Summer camps.—The method of sewage disposal in summer camps must be approved by the provincial department of health; drinking water must be pure and wholesome.

Swimming pools.—Special regulations have been passed requiring the chlorination of water and the sanitary maintenance of swimming pools.

Roadside water supplies.—No special legislation has been passed concerning roadside water supplies.

Experimental station.—The division of sanitary engineering operates a permanent water and sewage experimental station in which research is conducted in this phase of public health. The station is located about 2 miles from the department of health building.

Activities.—The division of sanitary engineering has been conducting sanitary surveys in the various municipalities since 1920. This work includes an inspection of every residence and analysis of all private drinking-water supplies. The information is tabulated and placed by means of a suitable legend on a map showing all houses not fully connected to the municipal water mains and sewers, the location of all outdoor privies, septic tanks, wells, etc. A report and recommendations for improvement in conditions is prepared and forwarded to the municipality with a copy of the sanitary survey made. Notable improvements in municipal sanitation have followed the receipt of this information by local officials. Special regulations have been issued with respect to the connection between municipal water supplies and auxiliary fire supplies in order to protect the former against the introduction of contamination by means of industrial supplies. The division provides a chlorine solution for the sterilization of water supplies in summer resorts and other places where the quality of the water might be suspected.

DIVISION OF CHILD HYGIENE

Personnel.—In 1930 the personnel of the division of child hygiene consisted of a director, 2 medical inspection officers, a chief school nurse, 12 public health nurses, and 2 stenographers.

Prenatal clinics.—No prenatal clinics have been established by the department of health.

Midwifery.—Midwives are not a problem in Ontario.

Ophthalmia neonatorum.—Preventive measures for the control of ophthalmia neonatorum cases are compulsory.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are licensed by the provincial secretary's department.

Infant and preschool hygiene.—The department of health offers consulting service in infant and preschool hygiene to local organizations; demonstration service in centers without local nurses with a view to establishing permanent local service; and continuous service in certain parts of unorganized sections of the Province. The larger municipal centers throughout the Province have child hygiene programs which include clinics for the examination of infants. No regular clinics are conducted by the department of health and treatment is left to the local authorities.

School hygiene.—The medical examination of school children is made by officers of the local boards of education or local boards of health, depending upon local conditions. The provincial department of health makes annual grants to municipalities carrying on approved school-health programs of \$500 for the first nurse and \$100 for each additional one. Legislation permits the local school boards to supervise specialized school hygiene activities in districts operating previous to 1924. All activities established since that date, however, must be conducted under the auspices of the local board of health.

Eligibility requirements.—A provincial public-health nurse must be a registered nurse, a graduate of a reputable training school, and a graduate of a recognized public-health training course. Under special circumstances applicants who can not fulfill the requirements but who can supply satisfactory evidence of experience in definite public-health nursing work may be considered. Temporary permits are sometimes granted on the understanding that the individual will take special training at the first opportunity.

Number of nurses.—Nineteen nurses are employed by the provincial department of health including 13 general public-health nurses, including school nurses; 1 nurse for tuberculosis-control work, 1 nurse for venereal-disease control work, 2 supervising local public-health nurses, and 2 supervising local school nurses.

Municipal nursing service.—In practically all urban centers throughout the Province the local authorities employ public-health or school nurses. Direction as to the best methods of carrying on this work is offered by the provincial department. In municipalities conducting a general health nursing program, which includes school work of a required standard, an annual grant of \$500 is paid by the provincial department of health.

Mental hygiene.—The director and staff physicians of the division of child hygiene collaborate with the department of education in the examination of mentally deficient and psychopathic children and those suffering from definite mental disease. Legislation has been passed whereby local boards of education may provide auxiliary

classes for the mentally deficient. A special grant is made toward this work by the provincial department of education.

Summer course.—The division of child hygiene organizes a summer course for school nurses which is approved by the department of education and held at the University of Toronto.

DIVISION OF NURSE REGISTRATION

Personnel.—The staff of the division of nurse registration in 1930 consisted of a director, two clerks, and two stenographers.

Activities.—This division was organized primarily to set a standard of registration for nurses graduating from the various hospitals of the Province and to improve their living and teaching conditions generally. Since 1926 examinations for nurses have been held twice yearly at various points throughout the Province. An effort has been made to place these centers as convenient to remote sections as possible. All applications for registration from other Provinces and States are also examined. Arrangements for affiliated courses in such hospitals as require general or special experience for their students are made in order that they may qualify for provincial standing. In 1929 100 hospitals were conducting training schools for nurses and visits of inspection were made to 30 of these schools by the division of nurse registration. A decided improvement in the living and teaching conditions for nurses has been made since the initial survey of 1923. The lack of properly trained nurse instructors is now being met. Under the extension department of the University of Toronto a training course has been made available, and the initial enrollment of 21 students will provide some of the hospitals of the Province with qualified teachers.

DIVISION OF PUBLIC HEALTH EDUCATION

Personnel.—The personnel of the division of public-health education consisted in 1930 of a director, an assistant, an attendant in charge of exhibits, and a stenographer.

Publicity.—It is the duty of the division of public health education to distribute literature concerning sanitation.

Press service.—No regular press service is maintained by the health department.

Bulletin.—A health almanac is issued yearly. No other regular bulletin is issued by the provincial department of health.

Equipment.—The provincial department of health owns 3 stereopticons, 150 slides, 25 films, 2 motion-picture machines, and portable exhibits. During 1929 the films were shown to about 20,000 people.

Cooperation.—In conducting educational activities the health department cooperates with the women's institutes, the farm home demonstration agents, and agricultural representatives.

DIVISION OF INDUSTRIAL HYGIENE

Personnel.—In 1930 the personnel of the division of industrial hygiene consisted of a director, a clinician, a research physician, an assistant chemist, a chief inspector, five inspectors, and a stenographer.

Activities.—The division of industrial hygiene has three major lines of activity: (1) It acts as a clearing house of information and keeps itself up to date with the progress of industrial hygiene all over the world; (2) through its personnel and laboratory facilities it offers assistance to any plant confronted with ill-effects from its processes; (3) it makes studies of especially dangerous trades in order to ascertain the cost in terms of human wastage and death, and to recommend preventive measures.

Laboratory work.—During 1929, 330 examinations of workmen were referred to the laboratory. These men all presented some occupational disease, mainly lead poisoning or silicosis. Three hundred and fifty blood smears were examined for evidence of absorption of lead. One hundred and sixteen examinations were made in cooperation with the tuberculosis division, which reciprocated in answering the division's various silicosis inquiries. Additional groups of 35 experienced granite cutters, 33 workers exposed to arsenic, 60 workers exposed to artificial abrasives, and 50 compositor apprentices were examined; the results were studied to determine the effects of these substances and to protect the workmen. The supervision of workers exposed to arsenic has been continued. During 1929, poisoning from chromium and its compounds was added to the list of compensable diseases in the workmen's compensation act.

Ventilation.—The subject of ventilation has continued to occupy the attention of the division. Detailed records of the temperatures of class rooms and the teachers' sensations of comfort, heat, cold, dryness, and odors have been obtained. In addition, records of the various types of illness causing absence from school among about 8,000 school children over a period of months are being studied. A similar investigation has been carried out in a modern office building.

Sanitary inspection.—The principal activity of the sanitary inspection branch of the division is the supervision of sanitary conditions, particularly those in industries located in unorganized territory. Well-trained physicians are being constantly attracted to the care on contract of employees sick as a result of poor sanitary conditions and the preventive aspect of this work is constantly assuming more importance.

TABLE 306.—*Total budget, provincial legislative budget for health work, and budgets by divisions, by years*

ONTARIO								
Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$54,014	\$143,213	\$118,517	\$174,330	\$174,835	\$471,100 ¹	\$561,700 ¹	\$604,500
Provincial legislative budget.....	54,014	143,213	118,517	174,330	174,835	442,364	504,227	547,027
Central administration.....	22,943	25,501	23,450	42,256	53,354	98,450	92,115	109,894
Division of preventable diseases.....	2,295	24,553	37,031	40,057	46,668	163,344 ¹	202,334 ¹	208,171
Division of laboratories.....	7,450	7,225	18,586	22,968	27,795	46,749	62,030	84,586
Division of sanitary engineering.....	11,248	9,987	13,476	13,280	9,824	29,991	35,372	36,263
Division of public-health education.....	3,843	3,798	4,781	6,377	7,967	7,617	8,504	10,199
Health districts.....				11,872	23,141	46,104	37,318	41,939
Division of child hygiene.....						27,260	53,395	80,797
Division of industrial hygiene.....						1,127	4,577	9,366
Division of dental hygiene.....								
Division of vital statistics ²								
Division of nurse registration.....								

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$602,850 ¹	\$644,775 ¹	\$679,226	\$677,410 ¹	\$712,523 ¹	\$716,963 ¹	\$784,201 ¹	\$807,450
Provincial legislative budget.....	545,377	584,604	634,098	638,967	674,080	729,538	751,776	807,450
Central administration.....	108,913	116,797	120,155	89,099	57,401	48,683	33,420	46,325
Division of preventable diseases.....	1228,279 ¹	1254,336 ¹	1248,115 ¹	1208,798 ¹	1259,315 ¹	1299,898 ¹	1304,399 ¹	318,400
Division of laboratories.....	82,050	86,468	87,959	73,060	72,441	89,450	97,008	108,825
Division of sanitary engineering.....	35,412	37,662	40,427	29,888	29,413	36,522	39,329	48,700
Division of public health education.....	15,741	9,038	12,772	1,280	4,290	4,135	20,444	35,400
Health districts.....	43,913	44,294	44,119	44,344	42,885	42,313	43,699	44,300
Division of child hygiene.....	72,471	79,703	77,828	107,104	71,261	83,928	73,974	76,150
Division of industrial hygiene.....	10,664	16,008	16,216	18,371	28,269	32,077	44,409	43,300
Division of dental hygiene.....			1,651	4,464	6,007	6,327	7,698	14,000
Division of vital statistics ²			32,925	66,282	64,425	64,679	64,676	63,000
Division of nurse registration.....				3,174	6,471	9,137	11,037	9,050

¹ Dominion Government funds included. (See Table 307.)² Transferred from provincial secretary's department in May, 1925TABLE 307.—*Total appropriations for provincial department of health, by year*

ONTARIO							
Year	Total appropriation	Source of funds and amounts		Year	Total appropriation	Source of funds and amounts	
		Provincial legislature	Dominion Government			Provincial legislature	Dominion Government
1915.....	\$54,014	\$54,014		1923.....	\$602,850	\$545,377	\$57,473
1916.....	143,213	143,213		1924.....	644,775	584,604	60,171
1917.....	118,517	118,517		1925.....	679,226	634,098	45,128
1918.....	174,330	174,330		1926.....	677,410	638,967	38,443
1919.....	174,835	174,835		1927.....	712,523	674,080	38,443
1920.....	471,100	442,364	\$28,736	1928.....	716,963	729,538	32,425
1921.....	561,700	504,227	57,473	1929.....	784,201	751,776	32,425
1922.....	604,500	547,027	57,473	1930.....	807,450	807,450	

QUEBEC

PROVINCIAL BOARD OF HEALTH

Organization.—The board of health of the Province of Quebec is merely a consulting and nonexecutive body. It is composed of eight members, all of whom must be physicians with five years' professional experience.

Quebec - Organization of the Provincial Bureau of Health in 1930

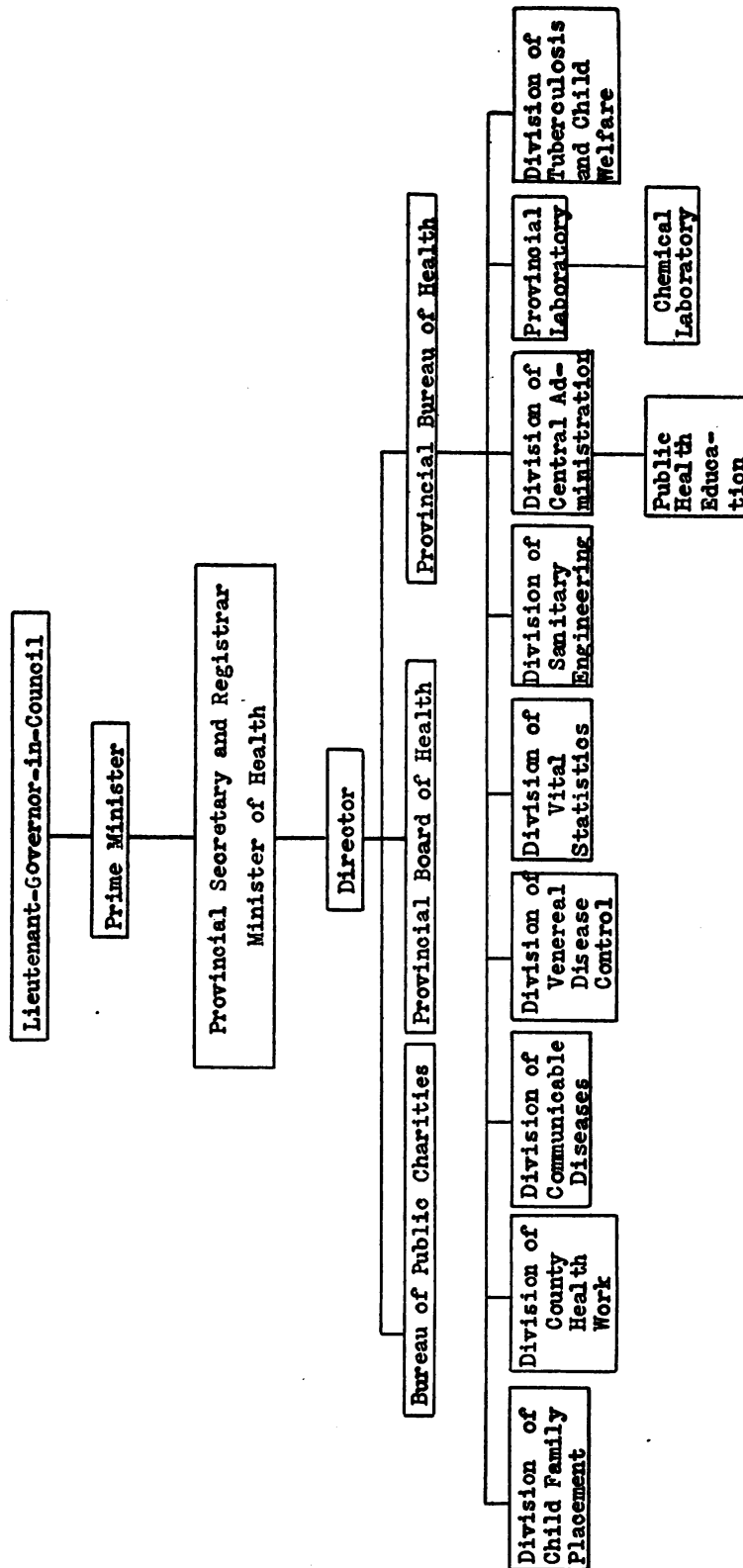


FIGURE 80

Term of office and salary.—The members of the board of health are appointed by the lieutenant governor in council and serve during the pleasure of the ministry. They receive a salary of \$10 a day when in session and their traveling expenses.

Meetings.—Regular meetings are held every three months on call of the secretary.

EXECUTIVE OFFICER

Legal qualifications.—The provincial secretary and registrar is chosen by the premier as the minister of health. The latter delegates his executive authority to the director of the provincial bureau of health, who is chosen by the lieutenant governor in council from outside the membership of the board and who becomes a member of the board. He must be a physician.

Term of office and salary.—The director serves during the pleasure of the lieutenant governor in council and receives a yearly salary of \$6,000 and his traveling expenses.

POWERS OF THE PROVINCIAL BUREAU OF HEALTH

Judicial, legislative, and executive powers.—The bureau of health has judicial, legislative, and executive powers concerning sanitation in general, water pollution, sewage disposal, nuisances, communicable diseases, and quarantine. Milk supplies are under the control of the local boards of health except pasteurizing plants which are under the direct control of the provincial bureau of health.

The laws concerning food adulteration are administered by the Federal Government. The provincial department of health has no authority over midwives and does not enforce the medical practice act. The executive power of the provincial bureau of health is vested in the director. He consults the board on any proposed amendment to the laws and regulations and is responsible to the minister of health.

APPROPRIATION

The provincial legislature makes an annual appropriation to the bureau of health. Expenditures are made from this amount as needed by each division. No appropriation is made for the expenses of the county health units division. These expenses are paid from the consolidated revenue of the Province, upon the request of the director.

TABLE 308.—*Divisions of the provincial department of health in 1930*¹
QUEBEC

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
Division of central administration.....	(2)	9	\$6,000	\$12,200	\$18,200
Division of county health work.....	(2)	1	4,500		4,500
Full-time counties.....	(2)	56	30,000	52,500	82,500
Division of communicable diseases.....	\$97,405	20	4,000	69,000	73,000
Division of tuberculosis and child welfare.....	75,000	31	(2)	35,000	35,000
Division of venereal diseases.....	72,000	3	2,000	3,200	5,200
Division of vital statistics.....	(2)	13	3,500	10,400	13,900
Provincial laboratory.....	(2)	13	4,000	17,700	21,700
Division of sanitary engineering.....	(2)	4	4,000	6,600	10,400

¹ Total appropriation, \$658,888; total appropriation exclusive of tuberculosis sanatoria funds, \$658,888; provincial legislative appropriation, \$564,888.

² Appropriation voted in a lump sum.

³ Paid out of the consolidated revenue fund.

⁴ Ten health officers at \$3,000 each.

⁵ Director of the bureau of health is included.

⁶ The director of the bureau of health is in charge.

⁷ Officials included whose time is devoted to more than 1 activity.

DIVISION OF CENTRAL ADMINISTRATION

Personnel.—The personnel of the central office in 1930 consisted of the director, the assistant director, an accountant, two secretaries, and four clerks.

Civil service.—The employees of the provincial bureau of health are civil-service appointees. A change in provincial administration does not affect the tenure of personnel in the department.

Activities.—The director of the bureau of health is the general administrator of the department. He supervises the accounting department, county health work, tuberculosis, child welfare, and family placement work. In addition he is the director of public charities, in which capacity he distributes more than \$2,000,000 a year to hospitals and charitable institutions. During 1929 tuberculosis hospitals and sanatoria, child-welfare agencies, infant clinics, etc., received \$483,900 from the public charities fund.

Disbursement of funds.—The provincial treasurer has charge of the funds for the bureau of health. These funds are placed at the disposal of the director upon his request and with the approval of the minister of health.

Purchases.—The director purchases supplies under the supervision of the minister of health.

Public health education.—Public health education is supervised by the director of the provincial bureau of health.

Press service.—The newspapers cooperate with the health department when requested.

Bulletin.—A bulletin is published every two months by the bureau of health. No special pamphlets were issued in 1929.

Equipment.—The bureau of health owns 200 motion-picture films and 30 motion-picture machines.

Cooperation.—The health department cooperates with the educational authorities upon request.

DIVISION OF COUNTY HEALTH WORK

Personnel.—County health work is carried on under the supervision of a director.

Full-time units.—At the close of 1930 there were 23 full-time county health units representing 29 counties.

Supervision.—The director of county health work, under the supervision of the minister of health, has jurisdiction over the local boards of health and municipal councils.

DIVISION OF COMMUNICABLE DISEASES

Personnel.—In 1930 an inspector general was in charge of the division of communicable diseases. He reports to the director of the bureau of health who assumes responsibility for making decisions.

The inspector general supervises the work of 19 district health officers who devote full-time services to the control of communicable diseases.

Reporting of diseases.—Cases of communicable diseases are reported immediately to the provincial bureau of health by the local health officers.

Quarantine.—Quarantine measures are controlled through the local health authorities.

Smallpox vaccination.—Smallpox vaccination is compulsory for school children.

Emergency fund.—No emergency fund is provided. In case of an epidemic, funds may be obtained from the treasury through the lieutenant governor in council by means of special warrants at the request of the minister of health.

DIVISION OF TUBERCULOSIS AND CHILD WELFARE

Personnel.—The director of the provincial bureau of health is in charge of tuberculosis and child-welfare work. In 1930, 30 nurses were engaged in this service.

Dispensaries.—In 1929, 19 antituberculosis dispensaries were operated under the supervision of the bureau of health. Thirty thousand patients were treated. Each dispensary is conducted by a part-time physician and one or two full-time nurses.

Sanatoria.—Six provincial tuberculosis sanatoria with a total capacity of 1,400 beds are administered by private corporations and the provincial government.

Children's clinics.—During 1929, 80 children's welfare clinics were operated under the supervision of the bureau of health. Prenatal,

infant, and preschool work was carried on at these clinics. Traveling clinics are conducted by the county health units.

Midwifery.—There are very few midwives in the Province of Quebec. No supervision or instruction is given to midwives by the bureau of health.

Ophthalmia neonatorum.—No legislation has been passed concerning the care of ophthalmia neonatorum cases other than the Federal regulation of 1926.

Lying-in hospitals and orphanages.—Maternity hospitals and orphanages are not licensed by the provincial health department.

School hygiene.—Each municipality and school commission is expected to carry on the medical examination of its school children. The children are examined by the district health officers and nurses. Parents are notified of the defects found.

Eligibility requirements.—A public-health nurse must be a graduate and registered nurse with special training in public health work.

Number of nurses.—In addition to the 30 nurses employed by the bureau of health, 25 public-health nurses are employed for the county health units.

DIVISION OF VENEREAL DISEASES

Personnel.—In 1930 the staff of the division of venereal diseases was composed of a director, an assistant director, and a secretary.

Clinics.—During 1929, 70 venereal disease clinics were conducted under the supervision of the bureau of health.

Treatments.—During 1929, 180,143 free treatments were given, of which 66,268 were salvarsan administrations. Treatments are distributed free to indigent patients.

Educational program.—An educational program is carried on and literature concerning venereal diseases is distributed.

DIVISION OF VITAL STATISTICS

Organization.—Formerly, vital statistics were collected and tabulated in the Montreal office of the health department. Clergymen of all denominations report once a year the number of births and marriages, and send in each month the medical certificates of deaths. Since January 1, 1926, this Province has joined the Federal bureau of vital statistics and a new division of vital statistics has been organized in the Quebec office.

Personnel.—The director of the division of vital statistics was aided in 1930 by 13 clerks.

Registration districts.—The Province is not divided into registration districts. For Roman Catholics the primary registration district is the parish. Other records are kept by the clergymen or the rabbis. Each parish is independent.

Local registrars.—It is the duty of every minister of the gospel to collect statistics and send records to the director of the bureau of health each month. A fee of 15 cents for each record is paid by the provincial bureau of health.

Reporting of deaths.—In 1929, 98 per cent of the deaths occurring in the Province were reported; 90 per cent were reported by physicians and 8 per cent by others. Deaths are reported to the local registrars before burial and to the provincial registrar once a month.

Legal standards.—The standard certificate and the international list of the causes of death have been adopted in this Province.

Reporting of births.—In 1929, 99 per cent of the births occurring in the Province were reported; of these, 95 per cent were reported by parents and 5 per cent by physicians. Births are reported to the local registrar within 8 days and to the provincial registrar once a month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The Federal Government supplies the blanks for recording the returns and the postage is free.

Unlawful death.—In case death appears to be caused by unlawful means, the matter is referred to the coroner.

Burial permits.—Burial permits are necessary and are issued by the municipalities.

Licensing.—Physicians are licensed by the college of physicians and surgeons. Midwives and undertakers are not licensed.

PROVINCIAL LABORATORY

Personnel.—The staff of the provincial laboratory in 1930 was composed of a director, three assistants and nine technicians and helpers.

Branch and private laboratories.—No branch laboratories have been established. The bureau of health has no supervision over the private laboratories in the Province.

Special laboratory.—A chemical engineering and food laboratory in the central laboratory is under the direction of a special officer.

Activities.—During 1929, 67,409 examinations were made in the laboratory. The majority of these were venereal-disease examinations, milk and water analyses, Widal tests for typhoid, and diphtheria examinations. A summary of diagnostic activities is given on page 700.

Fees.—All examinations are free except analyses for individuals of milk, water, food, etc.

Biological products.—No biological products were manufactured in 1929. The bureau of health purchases and distributes vaccines and sera free of charge to the county health units through the division of central administration. The amounts issued in 1929 are given on page 701.

Research.—No research work is carried on by the laboratory.

DIVISION OF SANITARY ENGINEERING

Personnel.—In 1930 the personnel of the division of sanitary engineering consisted of the chief engineer and three assistants.

Public water supplies and sewerage systems.—Plans for the installation of public water supplies and sewage-disposal systems must be prepared by qualified engineers and submitted to the bureau of health for approval.

Bottled waters.—No legislation has been passed concerning bottled waters.

Analysis and inspection.—A full-time sanitary engineer is specially charged with the regular inspection of water-purification plants throughout the Province. Samples of water are analyzed regularly at the central laboratory; weekly analyses are made for some towns and daily analyses are made for other towns and cities.

Ice industry.—Regulations have been passed governing the ice industry.

Swimming pools and roadside water supplies.—No rules and regulations have been passed concerning the sanitation of tourist camps, summer camps, swimming pools, or roadside water supplies.

Inspection.—Through the division of sanitary engineering the provincial bureau of health enforces laws concerning the inspection of hotels, bakeries, slaughterhouses, etc.

Milk laws.—Pasteurization plants are under the direct control of the division of sanitary engineering. Laboratory examinations of milk supplies are made by the bureau of health. The medical examination of persons handling milk is required.

DIVISION OF CHILD FAMILY PLACEMENT

Personnel.—In 1930 the staff of the division of child family placement consisted of three nurses and one stenographer under the direct control of the division of central administration.

Activities.—The division of child family placement is concerned with the placing in country homes of children exposed to tuberculosis in the city slums.

TABLE 309.—Total budget, provincial legislative budget for health work, and budgets by divisions, by years ¹

QUEBEC						
Divisions ²	1925	1926	1927	1928	1929	1930
Total appropriation.....	\$ 335,000	\$ 362,767	\$ 410,700	\$ 465,125	\$ 603,159	\$ 658,888
Provincial legislative appropriation.....	312,000	337,000	377,000	427,000	523,489	564,888
Division of communicable diseases.....	77,543	83,177	87,740	100,308	97,405	97,405
Division of venereal diseases.....	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000	\$ 72,000
Division of tuberculosis and child welfare.....	100,000	100,000	100,000	100,000	75,000	75,000

¹ Figures not available for tabulation showing distribution of funds by divisions for 1915-1924.

² Appropriation for central administration, vital statistics, provincial laboratory, and sanitary engineering voted in a lump sum.

³ Dominion funds included. (See Table 310.)

⁴ Local funds included. (See Table 310.)

TABLE 310.—*Total appropriations for provincial department of health, by years*
QUEBEC

Year	Total ap- propria- tion	Source of funds and amounts			
		Provin- cial legis- lature	County	County towns	Domin- ion funds for venereal disease
1915.....	\$49,700	\$49,700			
1916.....	48,333	48,333			
1917.....	54,000	54,000			
1918.....	97,000	97,000			
1919.....	86,682	86,682			
1920.....	130,694	130,694			
1921.....	218,397	170,397			\$48,000
1922.....	238,068	189,068			49,000
1923.....	244,866	195,866			49,000
1924.....	337,000	302,000			35,000
1925.....	335,000	312,000			23,000
1926.....	362,767	337,000	\$800	\$1,967	23,000
1927.....	410,700	377,000	6,043	4,657	23,000
1928.....	465,125	427,000	9,052	6,073	23,000
1929.....	603,159	523,489	20,389	36,281	23,000
1930.....	658,888	564,888	30,000	41,000	23,000

¹ In addition the sum of \$96,750.76 was paid in 1923 for the purchase of radium for the University of Montreal.

SASKATCHEWAN

PROVINCIAL COUNCIL OF PUBLIC HEALTH

Organization.—The council of public health consists of the deputy minister of public health, 3 duly qualified medical practitioners, 1 qualified veterinary surgeon, and 1 civil engineer, a total of 6 members. The deputy minister is ex officio chairman of the council. The other members are appointed by the lieutenant governor in council.

Term of office and compensation.—Each appointed member holds office for two years and may be reappointed. The members receive \$30 per day when in session and actual traveling expenses.

Meetings.—At least one meeting a year must be held at such time and place as may be determined by the minister of public health.

Duties of the council.—The council considers and reviews all orders, rules, and regulations concerning public health and reports thereon to the minister of public health with such suggestions and recommendations, amendments, or cancellations as it deems necessary in the interests of the public health. The council also considers all matters referred to it by the minister of public health and such other matters as it may desire to consider and reports thereon to the minister of public health.

EXECUTIVE OFFICER

Legal qualifications.—The executive power of the provincial department of health is vested in the minister of public health and delegated by him to the deputy minister of public health. There are no legal qualifications for the office of deputy minister. He is nominated by the minister of public health from outside the council, and the nomination is confirmed by an order in council; that is, by the lieutenant governor in council.

Saskatchewan - Organization of the Provincial Department of Health in 1930

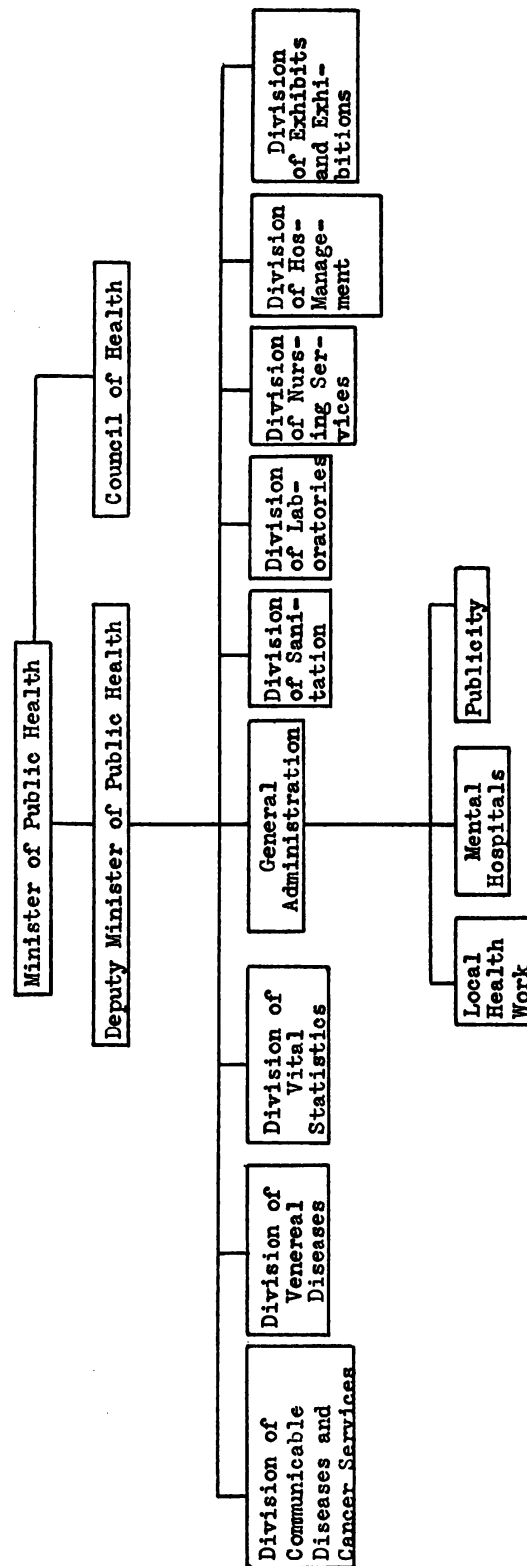


FIGURE 81

Term of office and compensation.—The deputy minister serves during the pleasure of the provincial government. He receives a yearly salary of \$4,800 and, in addition, \$6 per day for travel within and \$10 per day for travel outside the Province.

Powers of the deputy minister.—The deputy minister may, subject to the approval of the lieutenant governor in council, make and issue such rules, orders, and regulations as he deems necessary for the prevention, treatment, mitigation, and suppression of disease and for the relief of destitution.

POWERS OF THE PROVINCIAL DEPARTMENT OF PUBLIC HEALTH

Judicial, legislative, and executive powers.—The provincial department of public health has control over the prevention, treatment, mitigation, and suppression of disease; the relief of destitution; the supervision of hospitals and nursing homes; the establishment of cemeteries; general sanitation, including human habitations and factories; the organization of scavenging systems; the construction and maintenance of water supplies and sewerage systems; the prevention of the pollution of water; the defining of standards of milk offered for sale; nuisances; the inspection, licensing, construction, and maintenance of slaughterhouses; and the dissemination of health literature. The department also appoints and supervises the personnel of the health units. Control over the adulteration of food is a function of the Dominion Government; control over cleanliness of food devolves upon the provincial department of health. The enforcement of the medical practitioners' act is under the jurisdiction of the College of Physicians and Surgeons of Saskatchewan. Midwives are not legally recognized in this Province.

APPROPRIATIONS

The provincial legislature makes an annual appropriation to the department of public health for health work.

TABLE 311.—*Divisions of the provincial department of health in 1930*¹

SASKATCHEWAN

Division	Total budgets by divisions	Number of personnel	Salary of director	Salary of other personnel	Total salaries
General administration.....	\$15,280	5	\$4,800	\$7,745	\$12,545
Public health nursing, sanitation, and disease prevention.....	140,000				
Division of communicable diseases.....	(²)	4	4,250	4,280	8,530
Division of sanitation.....	(²)	10	3,800	15,160	18,960
Division of nursing services.....	(²)	17	2,520	24,020	26,540
Division of venereal diseases.....	29,700	16	(³)	19,320	19,320
Division of vital statistics.....	35,000	18	2,200	19,870	22,070
Division of laboratories.....	20,500	8	4,250	10,880	15,110
Biologicals.....	24,000				
Division of hospital management.....	550,000				
Relief of destitution.....	39,000				
Cancer services.....	145,000				
Treatment of mental cases.....	247,600				

¹ Total appropriation, \$1,193,718; total appropriation exclusive of tuberculosis-sanatoria funds, \$1,193,718; provincial legislative appropriation, \$1,185,345; provincial legislative appropriation exclusive of hospital aid, cancer services, and treatment of mental cases, \$242,745.

² Included under appropriation for public health nursing, sanitation, and disease prevention.

³ Deputy minister is in charge.

GENERAL ADMINISTRATION

Personnel.—The staff of the division of administration in 1930 consisted of the deputy minister of public health, the director of the division of exhibits and exhibitions, a secretary, a correspondence clerk, and a chief clerk.

Civil service.—The employees of the provincial department of public health are civil-service appointees. A change in provincial administration does not affect the tenure of personnel in the department.

Activities.—The deputy minister of public health serves as the general director of the department of public health, the registrar general of vital statistics, the director of the division for the control and prevention of venereal diseases, the director of public-health education, and the director of hospital management. The division of administration formulates public-health policies, appoints personnel, and makes recommendations to the minister of public health.

Disbursement of funds.—Vouchers are prepared and signed by the deputy minister, checked by the provincial auditor, and paid by the treasury department of the Province.

Purchases.—Purchases are made through the general administration for the various divisions of the department of public health. Purchases exceeding \$10 require an official order signed by the deputy minister.

Health districts.—For the purpose of carrying out the provisions of the public health act, each municipality, whether rural district, village, town, or city, is considered as a health district. The council of the municipality is, therefore, its health board and is responsible for the enforcing of all acts, rules, and regulations in force. The appointment of a medical health officer is required at the first meeting of the local council in the year. He serves as the chief municipal health and sanitary officer. In unorganized districts or areas not within any municipalities the minister of public health may appoint one or more medical health officers.

Full-time health units.—In 1929 legislation was passed permitting the formation of full-time health units. Up to the close of 1930 one unit in the Gravelbourg district had been established.

Supervision.—The department of public health acts in an advisory and supervisory capacity to the health boards of the municipalities. Should it appear that efficient measures are not being taken by a local board of health or that its powers or duties are not being exercised the deputy minister of public health may require the board to exercise and enforce such powers at the expense of the municipality.

Publicity.—The deputy minister directs the publicity of the health department.

Press service.—No special press service is provided. Articles for the press are presented through the bureau of publications.

Bulletins.—No regular bulletin is issued to the general public, but pamphlets on the various communicable diseases, social hygiene sanitation, prenatal care, etc., are published and distributed. Articles are also published in the Canadian Public-Health Journal. The division of nursing services issues a monthly news letter to their staff.

Lectures.—Radio talks are broadcast from time to time by members of the department. Lectures, illustrated and otherwise, are given throughout the Province whenever requested or thought expedient.

Equipment.—The department of health owns a stereopticon, 2 motion-picture machines, about 500 slides, 20 motion-picture films, and portable exhibits, including a complete venereal-disease exhibit and numerous models and exhibits relating to communicable diseases, sanitation, prenatal care, school hygiene, etc.

Cooperation.—Matters of health in schools are referred to the department of public health. Public-health nurses are allowed to inspect school children. Conferences are held with the department of education in relation to the teaching of public health to normal-school students.

Mental hospitals.—Administration in connection with the treatment of mental cases in the mental hospitals of the Province was transferred from the department of public works to the department of public health in May, 1930.

DIVISION OF COMMUNICABLE DISEASES AND CANCER SERVICES

Personnel.—The personnel of the division of communicable diseases in 1930 consisted of a director, an inspector, a clerk, and a stenographer.

Reporting of disease.—Cases of communicable diseases are reported weekly by the local health officers to this division.

Quarantine.—Quarantine measures are controlled by the local health authorities.

Smallpox vaccination.—The minister of public health may order compulsory vaccination within the limits of any locality. Medical health officers must at all times keep a sufficient amount of vaccine on hand for emergency purposes.

Emergency fund.—An emergency fund is provided for contingencies. This fund is not included in the appropriation for the provincial department of health. The money is obtained on warrant issued by the executive council of the provincial government.

Undertakers.—Undertakers are licensed by the division of communicable diseases. Regulations governing the care of the dead and the transportation of corpses are enforced by this division.

Tuberculosis control.—The control of tuberculosis is a function of the Saskatchewan Anti-Tuberculosis League, but the provincial government provides the buildings and equipment. Treatment in the

sanatoria is free; the municipalities of the Province are taxed for the cost of treatment, and the government pays \$1 per day per patient toward operation. The nurses attached to the division of public-health nursing do follow-up work among people in the early stages of the disease; they furnish advice and distribute literature regarding treatment.

Clinics.—Tuberculosis clinics are conducted by the Anti-Tuberculosis League. During 1929, 1,157 patients were treated in these clinics. The league also pays \$5 to a family physician to examine a tuberculosis contact.

Sanatoria.—The provincial government owns three tuberculosis sanatoria, with a capacity of 647 beds. These sanatoria are operated by the Anti-Tuberculosis League. Through its grant of a dollar per patient per day the provincial government contributes approximately one-third of the cost of treatment. The general hospitals of the Province set aside beds for tuberculosis patients to the extent of one-tenth of their bed capacity.

Cancer services.—The 1930 legislature passed the Saskatchewan cancer commission bill providing that the department of public health set up a permanent cancer commission and that a supply of radium for the treatment of cancer be procured by the government. Cancer clinics are to be established. A total of \$115,000 has been set aside for the purchase of radium, etc., and an additional \$30,000 for cancer services.

VENEREAL-DISEASE DIVISION

Personnel.—In 1930 the deputy minister was the director of the venereal-disease division. The personnel of the division included an assistant director, 1 part-time, and 2 full-time nurses, 4 orderlies, and 7 part-time physicians.

Dispensaries.—Six venereal-disease dispensaries for the examination and treatment of patients are maintained under the supervision of this division. Each clinic is conducted by a physician who devotes part time to this work.

Treatments.—Treatments are administered free of charge. During 1929, treatment for syphilis numbered 4,430 persons and for gonorrhea 29,313.

VITAL STATISTICS DIVISION

Personnel.—The deputy minister of health is the registrar general of the division of vital statistics. In 1930 he was assisted by a director, an inspector and 16 clerks and stenographers.

Registration district.—Every municipality is a registration division. Unorganized areas of the Province may be attached to existing registration divisions or set apart as separate registration divisions.

Local registrars.—The clerk or secretary-treasurer of each municipality or such other person as may be approved by the lieutenant governor in council is the registrar of that particular municipality. Where a registration division is formed of territory not within a municipality, the lieutenant governor in council appoints the registrar. Each registrar receives a fee of 25 cents for each complete registration. Fees are paid from the consolidated fund of the Province. If such fees do not amount to a total sum of \$5 in each six months, the further sum required to make up the amount of \$5 in each six months is paid out of the consolidated fund of the Province.

Reporting of deaths.—In 1929, 99 per cent of all deaths occurring in the Province were reported. Of these 52 per cent were reported by undertakers and 48 per cent by others. Deaths must be reported before a burial permit is issued. A monthly return is made to the registrar general.

Legal standards.—The standard certificate and the international list of the causes of death are used in this Province.

Reporting of births.—In 1929 it was estimated that 99 per cent of births occurring in the Province were reported. All births are reported by parents, who are responsible for the registration of births within 15 days. Physicians in attendance are also required to notify the local registrar of births they have attended. Returns are made by the local registrars to the registrar general once a month.

Stillbirths.—Stillbirths are recorded as births and deaths.

Blanks and postage.—The Dominion bureau of statistics and the provincial department of health supply the blanks for recording the vital-statistics returns. The postage is franked from local registrars to the division of vital statistics.

Unlawful death.—In case the death is thought to be caused by unlawful or suspicious means, the matter is referred to the coroner for investigation.

Burial permits.—Burial permits are required and are issued by the local registrar.

Licensing.—Physicians are licensed by the Saskatchewan College of Physicians and Surgeons; midwives are not recognized; undertakers are licensed by the provincial department of public health.

PROVINCIAL LABORATORIES DIVISION

Personnel.—The personnel of the provincial laboratory division consisted in 1930 of a director, who is a bacteriologist and pathologist, a stenographer, four technicians, an analytical chemist, and a part-time helper.

Central laboratory.—The central laboratory is located in the parliament buildings at Regina, in close proximity to the other branches of the provincial department of public health.

Branch laboratories.—There are no government branch laboratories in the Province. However, many of the hospitals have their own laboratories.

Private laboratories.—The provincial department of health has no supervision over private laboratories.

Special laboratories.—No laboratories other than the central laboratory are maintained by the provincial department of health, but laboratory work is done at the University of Saskatchewan.

Activities.—Chemical examinations of water, tissue work, and medico-legal examinations are made at the laboratory in addition to the regular diagnostic work, which includes Wassermann tests, Widal's, sputum examinations, etc. During 1929, 28,853 examinations were made. A summary of the diagnostic activities is given on page 700.

Fees.—No fee is charged for any service performed by the laboratory.

Biological products.—Biological products are purchased and distributed free to physicians and hospitals by the division of communicable diseases. Antipoliomyelitis serum was manufactured and distributed where needed. The amounts issued in 1929 are recorded on page 701.

Research.—Work in connection with undulant fever was carried on by the laboratory during 1929.

DIVISION OF SANITATION

Personnel.—The personnel of the division of sanitation at the beginning of 1930 consisted of a director, who is an engineer, an assistant engineer, three stenographers, and five sanitary officers. Three additional sanitary officers were added to the staff on May 1.

Sanitary districts.—This division has supervision over matters concerning the general sanitation. Each sanitary officer is assigned a separate district. He acts in an advisory and supervisory capacity to the local health boards, which are required to enforce the regulations regarding sanitation. The activities of the sanitary officers include the protection of water, milk, and food from pollution; the teaching, through the local health authorities, of practical preventives in daily life and habits; improvement of sanitation; and the control of communicable diseases.

Public water supplies and sewerage systems.—Water and sewerage plants can not be constructed until plans and specifications have been approved by the minister of public health through this division.

Bottled waters.—As yet no legislation has been passed by the department of public health concerning the control of bottled waters.

Analyses.—Public water supplies are constantly supervised and are analyzed by the health department when thought advisable or upon request. Sterilized containers are supplied to those wishing to have

a test made of their domestic water supply. Upon analysis the division gives detailed information regarding the safety for human consumption and the location and construction of the well.

Inspection.—Each city has a full-time engineer who constantly supervises the water-purification plants and sewage-disposal works.

Ice industry.—A written permit from the minister of public health is necessary prior to the cutting of ice.

Camps.—The sanitary conditions of labor camps and summer resorts receive special consideration by the division.

Swimming pools.—The adoption of rules and regulations concerning the sanitation of swimming pools is under consideration.

Roadside water supplies.—No legislation has been passed concerning roadside water supplies.

Food inspection.—The inspection of food for cleanliness is a function of the department of public health. The medical examination of persons handling food is required.

Sanitary inspection.—Hotels, bakeries, etc., are inspected by this division.

Slaughterhouses.—Slaughterhouses are licensed by the division of sanitation and must comply with regulations as to cleanliness and construction. The killing of animals in the open is not permitted.

Shellfish.—The prevention of the pollution of shellfish is not a function of the health department.

Milk laws.—Municipalities are urged to take necessary precautions in safeguarding their milk supply. Milk regulations passed by municipalities are subject to the approval of the director of the division of sanitation. The tuberculin testing of cattle is made by a veterinary surgeon. A sanitary environment for the handling of the milk is required and dairies are licensed. Pasteurization plants are required to submit periodical reports on the bacterial content of their milk. Milk supplies are not analyzed by this division.

Union hospitals.—The union hospital act passed in 1917 provides that any two or more contiguous rural municipalities or parts of rural municipalities may cooperate with any number of urban municipalities in the establishment of a hospital, the proportion of the capital cost being distributed among the various units according to their land assessment. Rate payers may be taxed as a whole for maintenance charges or patients may be required to pay their own fees. This type of hospital was designed to provide hospital treatment for rural residents at a distance from the larger urban centers. The division of sanitation exercises supervision over the organization and construction of union hospitals through the preparation of sketches for proposed buildings and through information regarding the cost of building, maintenance, and other technical details supplied to the rate payers of the interested municipalities. All hospitals receiving a government

grant must comply with regulations both as to construction and operation and all plans and specifications are subject to the approval of the minister of public health. At the close of 1929 there were 18 union hospitals in operation.

DIVISION OF NURSING SERVICES

Organization.—In 1928 school-hygiene work was transferred from the department of education to the department of public health, and placed under the new division of nursing services in that department.

Personnel.—The personnel of the division of nursing services consisted in 1930 of a director, who is a registered nurse, a stenographer, and 15 public-health nurses.

Nursing service.—Each nurse is assigned to a district comprising about six rural municipalities. Schools are visited in the forenoon of the day, and homes are visited in the afternoons. The nurse is thus able to observe health conditions among both preschool and school-age children, and to assist both the mother in the home and the teacher in the school in efforts toward health improvement. Follow-up work in connection with tuberculous cases is also done by the nurses. During the winter months home nursing classes for women and junior health leagues for girls of high-school age are conducted. The nurses also assist local doctors in immunization work in connection with diphtheria and smallpox.

Prenatal work.—Prenatal work is done by the nurse, who visits expectant mothers regularly, urging upon them the necessity of early and regular medical consultation, advising them in matters of hygiene, and, if necessary, assisting them in making preparations. If the mother is indigent, the nurse may procure a maternity grant for her from the department of public health. The amount of this grant is \$25, of which \$10 is usually paid to the mother and \$15 to the attending doctor. During 1929, \$19,762 was paid on behalf of 895 mothers.

Midwifery.—Midwives are not recognized in this Province.

Ophthalmia neonatorum.—Physicians are required to instill into the eyes of the new born a few drops of a 1 per cent solution of silver nitrate which is supplied free of charge by the department of public health.

Lying-in hospitals and orphanages.—All nursing homes, maternity hospitals, rescue homes, and orphanages are inspected and licensed by the department of public health.

Preschool hygiene.—During the summer months preschool medical examination clinics are conducted. Either a local doctor or a doctor from the department performs the examination.

School hygiene.—The school hygiene work consists of school inspections made by the nurses of this division.

Eligibility requirements.—A public-health nurse in Saskatchewan must have had at least three years high-school education, have been graduated from a recognized training school, be a registered nurse in the Province, and have had training and experience or postgraduate work in public health nursing.

DIVISION OF EXHIBITS AND EXHIBITIONS

Personnel.—A director who is also an artist was in charge of the division of exhibits in 1930. He is included with the personnel listed under general administration.

Activities.—The department of public health arranges exhibits for the larger summer fairs throughout the Province. Information regarding venereal disease, sanitation, prenatal care, school hygiene, communicable diseases, child welfare, and general public health is supplied by means of models, posters, etc.

DIVISION OF HOSPITAL MANAGEMENT

Personnel.—The deputy minister of public health is the director of the division of hospital management. In 1930 he was assisted by a hospital accountant.

Hospitals.—Hospitals which comply with certain constructional requirements and whose method of operation is in conformity with regulations in force receive a grant of 50 cents per patient per day from the department of public health. This grant is payable semi-annually. During 1929, 58 hospitals were in receipt of this aid. Fifteen Red Cross outposts also received aid because they filled a great need in outlying districts. The total bed capacity of the government-aided hospitals is 3,731. The Province has, therefore, 1 hospital bed for every 232.3 of the population or 4.3 per beds 1,000 population.

TABLE 312.—*Total budget, provincial legislative budget for health work, and budgets by divisions, by years*

SASKATCHEWAN

Division	1915	1916	1917	1918	1919	1920	1921	1922
Total budget.....	\$187,000	\$190,400	\$251,800	\$303,170	\$476,000 ¹	\$457,000 ¹	\$510,500 ¹	\$508,000
Provincial legislative budget.....	187,000	190,400	251,800	303,170	470,879	441,638	495,138	492,638
General administration ¹	166,154	188,802	228,227	267,223	427,746	367,352	412,620	419,097
Division of vital statistics.....	14,294	16,694	15,391	19,822	22,033	33,522	37,802	36,173
Division of laboratories.....	-----	-----	7,916	10,306	10,411	18,205	22,538	20,263
Division of venereal diseases.....	-----	-----	-----	-----	¹ 18,294	¹ 56,157	¹ 36,536	¹ 32,593
Cancer services.....	-----	-----	-----	-----	-----	-----	-----	-----
Mental hospitals.....	-----	-----	-----	-----	-----	-----	-----	-----

See footnotes at end of table.

TABLE 312.—*Total budget, provincial legislative budget for health work, and budgets by divisions, by years—Continued*

SASKATCHEWAN—Continued

Division	1923	1924	1925	1926	1927	1928	1929	1930
Total budget.....	\$529,000 ¹	\$529,500 ¹	\$610,924 ¹	\$687,438 ¹	\$695,008 ¹	\$803,340 ¹	\$862,103 ¹	\$1,193,718 ¹
Provincial legislative budget.....	513,463	515,287	600,997	677,512	686,635	794,967	853,730	1,185,345
General administration ²	474,373	403,479	532,924	617,784	623,215	728,580	768,730	822,545
Division of vital statistics.....	34,291	31,459	33,138	32,627	32,426	36,126	35,000	35,000
Division of laboratories.....	16,100	15,563	16,760	17,409	18,482	19,290	20,000	20,500
Division of venereal diseases.....	31,172 ¹	27,628 ¹	28,102 ¹	19,617 ¹	20,884 ¹	19,343 ¹	30,000 ¹	29,700 ¹
Cancer services.....								145,000
Mental hospitals.....								247,600

¹ Dominion Government funds included. (See Table 313.)² Includes appropriations for communicable diseases, sanitation, child welfare, hospital grants, maternity grants, diphtheria antitoxin, etc.TABLE 313.—*Total appropriations for provincial department of health, by years*

SASKATCHEWAN

Year	Appropriation	Source of funds and amounts		Year	Appropriation	Source of funds and amounts	
		Provincial legislature	Dominion Government			Provincial legislature	Dominion Government
1915.....	\$187,000	\$187,000	-----	1923.....	\$529,000	\$513,463	\$15,537
1916.....	190,400	190,400	-----	1924.....	529,500	515,287	14,213
1917.....	251,800	251,800	-----	1925.....	610,924	600,997	9,927
1918.....	303,170	303,170	-----	1926.....	687,438	677,512	9,926
1919.....	476,000	470,879	\$5,121	1927.....	695,008	686,635	8,373
1920.....	457,000	441,638	15,362	1928.....	803,340	794,967	8,373
1921.....	510,500	495,138	15,362	1929.....	862,103	853,730	8,373
1922.....	508,000	492,638	15,362	1930.....	1,193,718	1,185,345	8,373

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